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EMERGENT MIND AND EDUCATION

A Study of George H. Mead's Bio-social Behaviorism from an Educational Point of View

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To my wife

ELIZABETH NOYES CLAYTON

*for her many acts of
loving encouragement*

Acknowledgment

THE author is indebted to The University of Chicago Press for permission to quote extensively from three volumes by George H. Mead: *Mind, Self and Society*, *Movements of Thought in the Nineteenth Century*, and *The Philosophy of the Act*.

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A. S. C.

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Introduction

THIS study is an attempt to develop George H. Mead's theory of emergent mind and self from the educational point of view. It takes as fundamental this premise:

What we conceive or assume the mind to be is of determining influence, both in the field of method and in the realm of values or goals. Perhaps the most effective way to become intelligent about the business of education, in both its narrower and its broader aspects, is to explore the problem of learning with reference to its implications regarding the nature of mind.¹

These pages express the belief that there is a significant educational orientation implicit in Mead's bio-social behaviorism.

The study approaches the problem of the nature and functioning of mind through the current materials of educational psychology (Chapter II). Widely different points of view are found within these materials. On the one hand is the position of the mentalistic psychologies in which the individual-minded self is taken for granted; learning is regarded as the mastery of established knowledge with little reference to the child's actual context of experience. According to this school of psychology education is conceived as the development of the faculties of man's rational nature. On the other hand is the mechanicalism of the radical behaviorist and the S—R bond psychologist, in which the complexities of reflective intelligence are dealt with exclusively in terms of the mechanisms of the lower animals, and human behavior is reduced to simple, discrete units. In this school of psychology learning is conceived in terms of the establishment of specific responses to specific stimuli, and the formation of fixed habits of response through repetition and drill is the essence of educational method. Neither of these

¹ Boyd H. Bode, *How We Learn*, Preface. Boston: D. C. Heath and Company, 1940.

positions seems to have an adequate theory of the mind and of the learning process. One makes the functioning and growth of mind a mystery; the other explains mind chiefly by explaining it out of existence. The writer has found in Mead's emergent theory a more fruitful approach to the nature of mind and the learning process.

Mead both avoids the dualistic presupposition which he finds involved in the mentalistic psychologies and social psychologies of the last century, and escapes the reductionism and mechanicalism of John B. Watson's extreme behaviorism. He finds that the view of mind as a natural emergent from non-mental conditions is inherent in the method and findings of research science and therefore all dualistic explanations of mind are inadequate (Chapter I). His loyalty to the experimental method and his wholehearted acceptance of the evolutionary hypothesis lead him to reject all individualistic psychologies as scientifically inadequate, for he believes that all of them presuppose what they set out to explain and hence fail to provide an empirical account of the growth of consciousness.

Extreme or Watsonian behaviorism, according to Mead's analysis, is unsatisfactory for the following reasons: it has an inadequate conception of thought; it denies the peculiarly psychological aspects of experience; it has a faulty stimulus-response concept; and it neglects the social aspects of language communication (Chapter II). In his opinion, however, the behavioristic approach is the correct one, for it is only as we interpret reflective intelligence in terms of communication as a distinctive kind of behavior that we can develop a satisfactory empirical account of mind. To deal adequately with the traits of human conduct, we must supplant the older physiological behaviorism with a social behaviorism—a description of behavior at the distinctively human level (Chapter I, Section 8).

According to Mead's hypothesis, the emergence of reflective intelligence out of the behavior of the biological organism is marked by the ability of the human individual to take the attitude of the other through the use of the significant symbol and in so doing to arrive at cognitive meanings and the conscious-

ness of himself as an object (Chapter III). Mead shows how an ability to deal reflectively with physical objects is the result of the cooperative act involving significant symbols in which the individual is enabled to take the role of the other and in time to take the role of physical objects. It is his belief that such an account of the nature of the reflective process is adequate for a behavioristic account of universals (Chapter IV).

In Mead's view, self-realization is coincident with at least the partial reconstruction of social patterns, and the assertion of the socially nurtured self against the existing mores and institutions in the search for a fuller and better integration of interests makes possible the growth and integration of personality (Chapter V). Mead finds in democracy the fullest opportunity for this correlative development of self and society (Chapter VI).

Mead considers that freedom and responsibility should be defined from this point of view. Our freedom and our responsibility are functions of our ability to deal with situations in terms of their anticipated consequences, to reconstruct existing beliefs and practices in the light of the interests and values which an individual prizes, and to apply our emergent reflective intelligence to areas dominated by non-scientific beliefs and procedures.

Most of Mead's statements on education were formulated during the first decade of the twentieth century and are concerned with problems of interest to him at that time. This study undertakes to make explicit some of the implications of Mead's views for current educational problems and controversies.

In general Mead's view of the mind and the self seems to be in line with that involved in the activity movement and the "new education" tendencies. His conceptions imply that educators should reject the intellectualistic view of learning which presupposes an individual mind assimilating an academic or formal subject matter isolated from the inclusive context of experience. His view, by and large, is that desirable human learning involves purposive activity, participation of the

learner in the determination of his aims, materials, and methods, and sharing in actual activities in which the individual can put to the test the anticipated consequences of his ideas or his purposes.

On the other hand, Mead's position would seem to indicate that some of our newer educational tendencies need careful examination. His thought does not, for instance, furnish any support for the occasionally current educational belief that any kind of pupil activity leads to meaningful growth. Further, Mead's view seems to call for a re-examination of the notion that education may build exclusively upon the immediate and unconditioned needs and interests of the child. For him, education involves ". . . the process of taking over a certain organized set of responses . . ." (69:265),* and acquiring this community attitude is an essential part of the process by which the needs and interests of the child mature. In a similar manner, Mead's position clearly implies that to develop rich meanings a much longer span of time, activity, and effort should be provided for in the construction of curriculum units than is provided in some of the versions of the activity curriculum.

Mead's development of the emergent view of mind appears to the writer to be particularly valuable at those places where he supplements the work of Dewey in defining more specifically the mechanisms and steps involved in the emergence of cognitive behavior. In the detailed analysis of the origin and working of the significant symbol and in the description of the mechanism of taking the role of the other in the building of the self, Mead has made what is probably his most unique and creative contribution. Professor Dewey has acknowledged his own indebtedness to Mead and has stated the importance which he attaches to Mead's work:

. . . His mind was deeply original—in my contacts and my judgment the most original mind in the America of the last genera-

* Numbers in parentheses refer to references in the Selected Bibliography, pages 176-9. The first number refers to the book title, the second to specific page or pages.

tion. . . . He had early in life an intuition, an insight in advance of his day. . . . His mind was germinative and seminal.²

Again, Dewey says:

. . . His identification of the process of evolution with that of continuous reconstruction by which nature and man (as a part of nature that has become conscious) solve the problem of the relations of the universal and the individual, the regular and the novel—this identification is his own outstanding contribution to philosophy.³

This study suggests that the value of Mead's thought also appears in the way he has surpassed the Gestaltist in describing mental phenomena in terms of empirically verifiable mechanisms. Mead's analysis of attitude, gesture, and significant symbol enables him to supply the middle terms in the emergence of mind and thus to offer an outstanding alternative to the Gestaltist's "insight" hypothesis.

Mead considers that basic to a satisfactory contemporary account of the nature of mind and the self is the scientific method. With the acceptance of this method he believes we are committed to the rejection of the dualistic explanation of the nature of thinking, and are obliged to use the experimental method in dealing with all our problems. The first task of this study, then, is to make clear Mead's conception of the research method and what is implied in it.

² John Dewey, "George Herbert Mead," *Journal of Philosophy*, Vol. XXVIII, 1931, p. 310.

³ John Dewey, "The Work of George Mead," *The New Republic*, Vol. 87, 1936, p. 329.

EMERGENT MIND AND EDUCATION

CHAPTER I

Methodology

Modern Science Replaces an Earlier View.—The Research Attitude.—The Inadequacy of the Positivistic View of Science.—Mead's Interpretation of the Experimental Method.—The Philosophical Task.—The Theory of Organic Evolution.—The Inadequacy of Dualism.—The Obligation of a Behavioristic View of Mind.—Summary.

FOR Mead, the outstanding characteristic of modern thought is the use of the scientific method. He affirms that:

. . . science, with its demand for freedom, is the outstanding fact not simply of the nineteenth century but of all thought since the Renaissance, for modern science brought in the Renaissance itself. A definite method was introduced at that time. (70:259)*

Mead's position is marked by a supreme loyalty to the method of modern science, and one of his contributions was to set forth that method and its implications for philosophy.

MODERN SCIENCE REPLACES AN EARLIER VIEW

Mead points out that modern science is replacing an earlier conception of science, which may still characterize our beliefs today.

It is, of course, the research attitude which distinguishes our modern science. . . . Research science approaches certain problems. It does not undertake to give a systematic account of the world as a whole in any specific field. In the earlier period the function of science seemed to be that of presenting a systematic account of the universe, including all living forms; and great interest was centered in the mere statement of classes, families, genera, and species. Interest centered in the picking-out of the proper types,

* Numbers in parentheses refer to references in the Selected Bibliography, pp. 176-9. The first number refers to the book title, the second to specific page or pages.

the selection of those characteristics which were best adapted for classification. But the interest in science shifted from that over to research work. (70:264)

The aim of the earlier conception of science, according to Mead's view, was to discover the systematized rational structure of the universe. It sought to make clear the logical pattern of this "real" world which it was assumed would give to experience its order and meaning. The older conception also sought to make experienced events intelligible by defining them in terms of their place in the established hierarchical structure of forms or species.

The earlier science, which Mead calls Aristotelian, was primarily deductive. Its general procedure was to start with a general definition or dogma, and from it deduce logical conclusions. He says in this connection:

The distinction between the scientific postulate and the dogma is the distinction between research science and the science of Aristotle. Aristotle stated that it was the nature of a heavy body to tend toward the center of the earth. He set that up as a dogma, as his particular definition of a heavy body. From that he could deduce any logical conclusion—for example, that the heavier the body the greater the tendency toward the center of the earth. If that is the case, then the velocity of the falling body must be proportionate to its weight. There you have a solution of a problem in a dogmatic fashion, deduced from a dogma. (70:266)

Mead sees that in the Aristotelian view scientific laws were immutable principles by means of which observable events are ordered and made intelligible. The interest of the earlier scientist was to discover the underlying rational character of the universe which preconditions all occurrences. Scientific laws were taken to be formulations of the preordained and guaranteed structure of the world in accordance with which events have to happen.

Mead finds involved in this view of science a correlative view of the nature of phenomena. "The scientist in the ancient world found his test of reality in the evidence of the presence of the essence of the object." (50:176) A particular event was taken to be the occasion for expression of the essence of that

event. The individual event always led back to the universal, the general definition of the form. Phenomena were the specimens which embodied their distinctive form or essence.

The nature of knowledge, which Mead sees involved in this earlier view of science, was the beholding of the eternal essence in the particular event.

The function of knowledge is to bring out this essence. The mind sees through the individuals the universal nature. The value of the observation lies . . . in the insight with which he recognizes the nature of the object. When this nature has been seen it is to be analyzed into essential characters and thus formulated into the definition. (50:191)

Mead is pointing out that inquiry in the earlier tradition sought to make intelligible the particular objects of everyday life by insight into how they partake in the established, systematized, rational structure of the universe. In Aristotelian science knowledge consisted in placing the particular under its appropriate type-pattern.

Thus, in Mead's analysis of Aristotelian science, an explanation was essentially a statement which accounted for the particular event in terms of the already established principle or belief. "In Aristotle's methodology there is no procedure by which the mind can deliberately question the experience of the community and by a controlled method reconstruct its received world." (50:191-2) The explanations of phenomena, which the earlier science offered, were in terms of the pre-established and fixed patterns in accordance with which events occurred. An adequate explanation, according to this earlier view, was one which subsumed the individual event into the existing conceptions without the reconstruction of those existing frames of reference.

Mead points out that when events are not amenable to explanation in terms of existing belief, Aristotelian science regarded them as being due to the resistance of matter.

. . . Since the matter of natural objects has reality through its realization in the form, whatever appears without such meaning

can be accounted for only as the expression of the resistance which matter offers to this realization. (50:178)

Events which were not subsumed by the existing belief were mere accidents. ". . . Aristotelian science . . . admitted certain accidents in nature that could never be explained. There were uniformities, but there were also exceptions which were just there as brute facts." (70:275) Hence, the recalcitrance of certain events to the established laws had no significance for the reconstruction of the system of existing beliefs. The event which was not explained, which was thought of as an accident, was disregarded in favor of the continuance of the established dogma. There was no method whereby inquiry could reconstruct the accepted frame of belief with which it started. No method existed whereby inquiry could be self-corrective.

Accordingly, Mead's view is that the basis of authority, in the earlier conception of science, was the established belief. The dogmas with which the earlier science dealt were cherished as a system of ideas that was to be maintained as given. They were not to be re-examined in the light of relevant facts which could not be explained by these principles. The occurrences which were exceptions to the existing belief had no status by which they could compel the revision of belief so that these exceptions would be explained. The exception was thrust aside, was an accident, and the authority of the dogma was guaranteed.

Mead sees that in this theory of science the observations and findings of the individual inquirer who was sensitive to the exception to the established belief were not utilized.

The individual within whose peculiar experience arises a contradiction to the prevailing conceptions of the community and in whose creative intelligence appears the new hypothesis which makes possible a new heaven and a new earth could utilize his individual experience only in destructive skepticism. Subjectivism served in ancient thought to invalidate knowledge not to enlarge it. (50:192)

The role of the human individual in the extension of knowledge was only to grasp the eternal pattern shining through particular occurrences. Objectivity consisted in leveling out the dif-

ferences which the individual's perspective gave him and in overcoming the uniqueness of the individual's point of view by focusing on the eternal forms.

Look through the literature of the ancient world, through such a really marvelous book as Aristotle's *Habits of Animals*, which sums up the biological knowledge of the ancient world. You will be struck by the fact that there is not a reference to a proper name, to an individual, as a basis for the accounts which are given of the animals with which Aristotle's treatise deals. He refers to a number of philosophers whose opinions he is combating; but when he comes to the statement of the character of animals he is describing, he never once refers to any individuals as having made this observation or that. He does not rest the value of the thought he is presenting on the testimony of anybody. (70:407)

There was an organization of the experience of the human individual in a systematic form: "Aristotle was the Encyclopedist of his period" (70:455). But there was no method whereby the exceptional experiences of an individual could be used to re-order the commonly accepted patterns of thought. The earlier scientist had no means whereby the unique experience of an individual could be so controlled, manipulated, and recorded that another individual could carry through a similarly controlled experience and render objective what appeared at first in the biography of the individual. Objectivity consisted, in the Aristotelian tradition, of ironing out individual differences rather than using them for a reconstruction of community belief.

THE RESEARCH ATTITUDE

In Mead's view, the research attitude of the modern scientist is distinguished by the method which has been developed for the solving of problems. The problem with which the earlier scientist was concerned was how the particular event was subsumed under the eternal form. The modern scientist has a different conception of the nature of problems and a different method for their solution.

To the modern scientist, according to Mead, a problem arises

when an existing belief does not explain the particular event which is an exception to that belief.

The research scientist starts from a specific problem that he finds as an exception to what has been regarded as a law. Given such an exception, he undertakes to present a hypothesis which will lead to the solution of the problem. His work, then, starts with the problem and ends with its solution. Now, what is involved in the solution is that the exception itself shall be accounted for, that a new statement shall be given which will overcome the opposition which the problem suggests. (70:264)

Mead sees that the modern scientist defines a problem as the appearance of an exception to existing belief and an attempt to revise that belief so that the exception will be taken care of.

In this statement of the problem, the scientist has a *distinctive method* for dealing with the problem. Science:

. . . states the problem in terms of checked processes; and then it has a test of the suggested solution by seeing whether those processes can continue or not. That is as valuable—in a certain sense more valuable—a contribution of science as any of its immediate results that we can gather together. (70:366)

The scientist is interested in stating the exception that is not accounted for in the generally accepted statement in such a way that he can test his proposed solution. The exception that is not accounted for in the existing rule presents a doubtful situation in which the habitual way of acting is blocked. An adequately reconstructed hypothesis will provide a means whereby we can continue to act. Research science tests the adequacy of its hypothesis by seeing whether the new postulate will get things together so that we can act upon the basis of its acceptance. What it has contributed is a way of testing our beliefs to see whether they take care of all the evidence involved in the problem.

Mead illustrates the method of research science by the procedure of the physician who is dealing with a contagious disease.

Before we knew about the microorganisms that carried the disease, it was assumed that the disease was carried by actual contact.

A sporadic case is an exception to the rule. Where no person has the disease there can be no contact. The sporadic case, then, is an exception. Now, the scientist starts off with a given point of view, a given theory, a given technique; he finds an exception to this; then he sets about forming a hypothesis which, on the basis of facts which he gathers together, will enable him to connect this exception with the other facts which are recognized and which can be established. Such a hypothesis was that of a microorganism which can bring disease, which itself is carried by a stream of water or in milk, or in some such fashion. This is a satisfactory illustration of the research method. It starts from an exception and undertakes to fashion a hypothesis which will bring these conflicting causes into relationship with each other. (70:264-5)

Thus, in Mead's view, the modern scientist is not interested in giving a systematized account of some presupposed rational order that preconditions events nor is he interested in perpetuating in their existing state the principles or laws which explain occurrences.

. . . The research scientist is looking for problems, and he feels happiest when he finds new ones. He does not cherish laws and the form in which they are given as something that must be maintained, something that must not be touched. On the contrary, he is anxious to find some exception to the statement of laws which has been given. (70:265)

The contemporary scientist does not regard the laws with which he deals as guaranteed or fixed. They are not legislating principles but hypotheses concerning probabilities, derived from the observation of uniformities.

Also, according to Mead's view, the modern scientist does not regard a phenomenon as the expression of the eternal essence of that type of event. Phenomena are events, not embodied essences. We observe sequences and correlations and recurrences and we formulate these observations as laws. The scientist is interested in the reconstruction of these laws so that they will lead to correct predictions and reduce the number of surprises or the exceptions to existing expectations.

Mead indicates that the modern scientific method reverses the earlier, Aristotelian attitude by using the observation of

the event which is not subsumed in the current law as the growing point of science. He says:

. . . The inclusion of the object of knowledge in the individual experience and the turning of the conflicts in that experience into the occasion for the creation of new objects transcending these contradictions, are the characters in the conscious method, of modern science, which most profoundly distinguish it from the method of ancient science. This, of course, is tantamount to saying that they are those which mark the experimental method in science. (50:197)

What the modern scientist has done is to turn to a method whereby operating principles, laws, or beliefs concerning the nature of the world, can be progressively reconstructed as our knowledge of events grows. Modern science thus provides a self-corrective method of inquiry which the earlier science could not achieve.

Modern science, to Mead, “. . . has brought on what we now call the ‘event’ as the object of observation. We do not observe, as Aristotle observed, to see through the process to what the nature of the object itself is.” (70:451) Observation does not penetrate immediately to the essence of the event. Knowledge is not an immediate grasp of the essence or the form of things. What is always involved in the method of observation and of knowing of the modern scientist is the relating of the observed event to the existing belief to see whether the existing belief needs reconstruction in the light of the event.

It is at this point that Mead contrasts his view of the procedure of the modern scientist with another modern notion of scientific method, that of the phenomenalist or positivist.

THE INADEQUACY OF THE POSITIVISTIC VIEW OF SCIENCE

Mead sees that the philosophical positivist attempts to use the scientist's procedure in dealing with philosophical and social problems.

What positivism undertook to do was to deal with that which falls within the field of philosophic thought as we deal with scientific data, in terms of scientific method. There we deal with the event as it appears. The event as it appears for the scientist, the

observer, is the sensation in consciousness. The scientist takes the event as something by itself. Then he finds out what other events are connected with it, finds what uniformity may be discovered, and forms a hypothesis of the way in which these events will be associated with each other. He tests this hypothesis by future events and establishes a theory, but a theory which still remains hypothetical in character. The assumption here is that knowledge is to be obtained only through the observation of events and the testing of hypotheses as they appear in experience, and that the immediate object of knowledge is the event and the thing. Here we have a philosophy which is positivistic in character. (70:453)

Positivism, according to Mead's view, holds that the scientist deals immediately and directly with facts or phenomena.

That which we know is what appears in experience—it is phenomenal. Our knowledge of that is positive and direct. . . . Knowledge should confine itself to the recording of experiences and the relationships which we find lying between them. (70:476)

The positivist holds that we can never get back of the phenomenal to what is not immediately perceived. "Positivism deals with what is there, what is positive and directly experienced, whose processes the mind can follow." (70:452) Hence observation is regarded as the direct recognition of facts. A hypothesis, a theory, is valued only as a means of reaching new facts, new phenomena and their relationships with which we can deal in this positivistic fashion. Scientific knowledge, according to the positivists, deals with these direct, immediate perceptions of experienced facts and relationships and has no necessary dependence upon theory or hypothesis.

In Mead's view, positivism does not give a competent account of the scientist's procedure. In its assumption that the world is made up of facts that are directly experienced and observed, positivism or phenomenalism does not adequately describe observation.

. . . Observation is not simply an opening of one's eyes and seeing what there is about, or opening one's ears and listening to what may occur. It is always directed by some sort of a problem which lies back in one's mind; it always expresses an interest of some sort. (70:281-2)

Observation, he holds, is not simply a photograph of external occurrences but is seeing these phenomena in the light of the accepted beliefs.

I have said that scientific observation is not simply the opening of one's eyes and seeing things as the images happen to fall on the retina. What it is, is the recognition of *the relationship of those things which you see to the customary view.** (70:283)

Mead considers that the logical weakness of positivism is that "it assumes the world is made up, so to speak, out of facts, is made up out of those objects that appear in the experience of the scientific observer"; it fails to see that "the objects of scientific observation answer to a detailed analysis, which implies an interest of some sort." (70:459) The scientist observes what is an exception to the expected experience. He gives attention to what is different from the common belief. He does not sit back and let the facts speak for themselves. What is essential is that he relates the facts to the commonly accepted view, to the established belief. Scientific observation and knowledge presuppose an organized structure of meanings and expectations, and the view that facts tell their own story without this context which makes possible the existence of a problem is a very inadequate view of scientific inquiry.

Mead points out that the positivist is mistaken in believing that the fact that is an exception to an existing law, and hence creates a problem, is identical with the fact that has been taken up into a reconstructed law. The positivist assumes that nothing happens to the fact in the process of becoming an object of knowledge.

And this is a great mistake,—the mistake made also by the neo-realist when he assumes that the object of knowledge is the same within and without the mind, that nothing happens to what is to be known when it by chance strays into the realm of conscious cognition. Any as yet unexplained *exception* to an old theory can happen only in the experience of an individual, and that which has its existence as an event in someone's biography is a different thing from the future *instance* which is not beholden to any one for its existence. . . .

* Italics not in the original.

That this is not a true statement of the nature of the *exception* and of the *instance*, it is not difficult to show if we are willing to accept the accounts which the scientists themselves give of their own observation, the changing forms which the hypothesis assumes during the effort to reach a solution and the ultimate reconstruction which attends the final tested solution. . . . We find that the direction which is given to attention in the early stage of scientific investigation is toward conflicts between current theories and observed phenomena, and that since the form which these observations take is determined by the opposition, it is determined by a statement which itself is later abandoned.* (50:200-1)

Thus Mead sees that the scientist does not deal merely with the bare events in solving his problems. He deals with occurrences in the light of their being exceptions to existing beliefs and with facts that are instances of existing beliefs. In either event, they are related to the theory in relation to which they exist as facts. The phenomena, then, do not tell their own story, and the scientist does not relax in their presence and let them tell him what to do. He is interested in distinguishing between the exceptions and the instances, and he pays particular attention to the exceptions while the instances are taken care of in the accepted theory. What is important to the scientist is that exceptional events enable him to reconstruct his hypotheses so that the exceptions can become instances of the reconstructed beliefs and he can go on to new exceptions that mark new problems.

Mead further points out that the exception always appears within the experience of the individual scientist.

The problem inevitably appears in the experience of some individual, for it is in the nature of that which is problematic [to be, in so far as it is problematic, at variance with the world which is common to us all. . . . The individual in any experience which is in any sense exceptional finds himself formulating what is exceptional as his own, while the setting and surroundings are there as the world of all. This is as true of thinking as of observation. The so-called commonly accepted truths appear in thought as there for all, over against which stand out the individual's objections, exceptions, and vaguer opposed feelings which are his own. (71:33-4)

* Italics not in the original.

The scientist is not open-minded in the sense of being free from belief in his approach to his problem. The problem has become his because he has taken up the existing beliefs concerning the uniformity of events and has become sensitive to an inadequacy, an exception, something that is not explained by the currently accepted principle or universal.

Mead indicates that the modern scientist is interested in the specific conflicts between exceptional facts and accepted theories, and such problems never involve all existing beliefs.

The scientist always deals with an *actual* problem. . . . No actual problem could conceivably take on the form of a conflict involving the whole world of meaning. The conflict always arises between an individual experience and certain laws, certain meanings while others are unaffected. These others form the necessary field without which no conflict can arise. They give the man of research his *πov στω* [his standing-place] upon which he can formulate his problem and undertake its solution. The possible calling in question of any content, whatever it may be, means always that there is left a field of unquestioned reality. (50:219)

The scientist's problem, then, is always less than the world as a whole, is always between certain facts and certain beliefs, laws, or universals.

Mead points out that the new hypothesis, the reconstructed belief, is always formulated in the perspective of the individual scientist, and yet modern science is not troubled by this subjective nature of inquiry, by what has been regarded as solipsism.

If we remain within the field and implications of scientific technique, it is palpably illegitimate to resolve all reality into such terms of individual experience, after the fashion of the phenomenalist or positivist, since the very definition and distinctive characters of the individual's experience are dependent upon its peculiar relation to a world which may not be stated in such terms, which is not analyzed but is simply there. This is most strikingly evidenced in the psychological laboratory, that externalization of so-called introspection, where we find the conditions under which may be rendered specific the experiences which are individual. The whole paraphernalia of experimental science stands there as the condition of the full exploitation of what is private. (71:35)

The scientific method is a means whereby the "precious peculiarity of the scientist that enables him to get hold of the problem whose solution gives a new heaven and a new earth" (70: 413) can take its place in the accepted world of common belief. The positivist has overlooked the importance of existing beliefs as the locus within which the observation of facts may take place.

MEAD'S INTERPRETATION OF THE EXPERIMENTAL METHOD

In one of Mead's fragments, he gives the logical, as distinct from the temporal, formulation of the pattern of experimental inquiry. We are not to understand that these aspects always occur in a precise chronological order nor are we to believe that they are all equally important. In certain instances some aspects of the scientific method may be telescoped into others.

a) The presence of a problem.—A problem can be most generally described as the checking or inhibition or some more or less habitual form of conduct, way of thinking, or feeling. We meet an obstacle in overt action, or an exception to an accepted rule or manner of thought, or some object that calls out opposing emotions.

b) The statement of the problem in terms of the conditions of its possible solution.—We find ourselves tending to act or think or feel with reference to a situation in ways that are so opposed that they inhibit one another. The statement of just what it is in the situation that calls out these inhibiting reactions is what we call gathering the data or facts. The effort to formulate these leads us to find like situations in the present or the past, but the goal of the process is such a definition of the facts that we are aware of exactly what are the conditions which must be met to enable us to continue our action, or thought, or feeling, and such a statement is a statement of the problem in the form that invites solution.

c) The formation of hypotheses, the getting of ideas.—The hypothesis or idea is of some possible representation, restatement, or reconstruction of the situation, in which the data or facts will no longer inhibit action, thought, or feeling.

d) The mental testing of the hypothesis.—The real test is whether activity goes on or not. We are trying to continue an act that is stopped. If we find ourselves acting in accordance with a hypothesis, we feel it is the right one. It is this testing with which logic has most to do, especially through the relations of propositions.

e) The experimental or observational test of the hypothesis.—This amounts to constructing or finding an actual situation answering to the hypothesis or idea, and discovering whether action, thought, or feeling can continue unimpeded. For example, a physician finds that the spread of an infectious disease invalidates his method of quarantine and therefore inhibits his use of it. He gathers the cases of the disease that so appear, and they constitute the conditions which any solution of his problem must meet. He gets the idea of other channels of infection, which is his hypothesis. He proceeds to act upon this hypothesis under conditions which are carefully controlled to see whether he can successfully continue fight against the disease. The scientific character of the method is evidently found in the careful exactness with which the problem is defined, the data gathered, the hypothesis formulated, and the experiment carried out, but these are merely the elaboration of the simple processes of everyday inference by which we meet our constantly recurring difficulties." (71:82-3)

As we see in this logical analysis of the experimental method (which is practically identical with Dewey's), that method involves "the statement of a problem in terms of its possible solution," in other words, the statement of just what it is in the situation that demands a more adequate hypothesis. The interest of the research scientist is in defining his problem in terms of the empirical conditions that must be met in its solution. Science:

. . . has welcomed every advance in mechanical science because it enables it to give a statement, an explanation, of that which is taking place. The more complete you can make your mechanical statement, the more satisfactory you can make your explanation. (70:272)

It must be borne in mind that what Mead means by a mechanical statement is not one which denies a place to purpose; it is not in conflict with a teleological statement, but a statement in terms of the observable conditions of the event. Mead does not accept mechanicalism, the view that reality is nothing but a bouncing of particles and that to explain anything it must be reduced to this mechanical order in which ends and purposes have no standing. Mead, rejecting mechanism as a dogma, accepts it in the sense that we gain the fullest under-

standing of and the most useful knowledge about a phenomenon when we can explain it in terms of its emergence from prior conditions. Such a genetic account means that vast new reaches of teleology will be made possible. (70:272-5)

To Mead, the scientist's hypothesis is an account of an event in terms of the mechanisms involved, or in terms of empirical conditions which can be so maneuvered that verifiable evidence is obtained. The scientist correlates the occurrence of the event with the conditions of its occurrence so that the controlled manipulation of those conditions will create a situation explained by the hypothesis. He thus obtains a statement in terms of conditions and relationships which are sufficiently determinate and manipulative that some observable difference is created by them. Scientific explanations are submitted to "the test of perceptual experience." (71:515) In the last analysis it is only by this means that ideas or theories can be experimentally verified.

This means that in Mead's view the scientific method rejects interpretations in terms of verbal formulations that are so removed from a manipulative context that they cannot be experimentally verified. An account of events in terms of their pre-established place in a rational order of the universe and of exceptions as accidents is such an explanation. It can not be tested by experiment. It can not be shown to make a difference in the observable behavior of things. It accounts for anything and everything. Because no empirical difference can be correlated with the concept, the modern scientist is no longer interested in such a belief. What the experimental method cuts out, then, is any explanation in terms of abstractions or dialectical entities that cannot be brought down to some kind of observational or experimental test.

The research attitude means, to Mead, that all hypotheses or postulates are tentative.

The scientist's attitude is that of a man in a going concern which requires at various points readjustments and reconstructions. The success of the readjustments and reconstructions is found in the triumph over the difficulty, as evidenced by the fact that the con-

cern continues to operate. He finds his tests in the parts of the whole which still operate. This does not imply that readjustments may not be called for later at these very points to which he now appeals for confirmation of the success of his solutions of the immediate problems before him. (71:48-9)

In Mead's view this empiricism of the research scientist means that all explanations are subject to reconstruction whenever any future investigator discovers exceptions that are not cared for in the existing hypotheses. Even the most basic assumption of the scientist, that of uniformity in nature, is a postulate.

Science has no absolute evidence that the world is explicable. It has only discovered a minute number of the so-called laws of nature. And yet, we go on the assumption that the whole of nature is intelligible. It is a postulate upon which we act and upon which science will undoubtedly continue to act, but no absolute proof can ever be presented for it. . . . Science in its attempt to know will always carry with it the assumption that the world is knowable. However—and I must insist upon this point—it remains only a postulate, inevitable, if you like, but one for which no absolute proof can be offered. (70:277-8)

The objectivity which the scientific method obtains for the scientists' hypothesis is, in Mead's opinion, the objectivity resulting from the confirmation of the hypothesis by other competent scientists. This confirmation:

. . . is not a deduction from accepted impersonal premises but the appearance in the experience of another individual of the same observation. It is in the mouth of two witnesses at least that it must be confirmed. (71:40)

What research science does is to state the conditions of the observation and experience of the individual so that they can become common to all.

Research defines its problem by isolating certain facts which appear for the time being not as the sense-data of a solipsistic mind, but as experiences of an individual in a highly organized society, facts which, because they are in conflict with accepted doctrines, must be described so that they can be experienced by others under like conditions. (50:206-7)

Thus it is that the private becomes the public. The scientist

defines his problem, forms and tests his hypothesis in terms of conditions which are observable and amenable to experimental manipulation, and records the procedure of his inquiry. Other scientists go through with the operations which have been recorded. They verify the hypothesis which has been reconstructed. It is this cooperative undertaking involved in the scientific method that verifies the individual's reconstruction of the existing belief.

THE PHILOSOPHICAL TASK

One of Mead's primary endeavors is to see what is involved for philosophy in this experimental method of modern science. In his view, an adequate philosophy must take account of the intellectual change that the method of science carries with it.

. . . The method of the scientist was worked out in science itself—that of the appearance of the exception and the statement of this in terms of the definite problem, the working-out of some hypothesis, and then the testing of that. That is the scientific method. . . . After all, the world is essentially a scientific world; and any philosophy which fails to express, to make use of scientific method, is a philosophy that is out of place. (70:143-4)

Mead's point is that a philosophy, germane and vital to the modern world, should be a philosophy that takes adequate account of the experimental method.

To what extent Mead believes that this experimental methodology undercuts certain metaphysical theses and implies certain positive metaphysical consequences is not always clear. Sometimes he seems to imply that this methodology has no consequences for one's metaphysical orientation. For instance, he says “. . . research science has been able to take over a mechanical theory of the world and postulate such a theory without committing itself to any philosophy based upon it.” (70:273) What Mead probably means is that the mechanical postulate does not entail the acceptance of a mechanistic view of the world as a dogma, rather than that the research attitude does not imply anything about the nature of the world. In a somewhat similar fashion we can interpret another of Mead's

statements in his article on "Scientific Method and Individual Thinker."

While the scientist may as a metaphysician assume the existence of realities which lie beyond a possible experience, or be a Kantian or Neo-Kantian, neither of these attitudes is necessary for his research. He may be a positivist. . . . He may be a pluralist. . . . None of these attitudes has any bearing upon his scientific method. (50:213-4)

In this passage Mead seems to be indicating the supreme loyalty of the scientist to his method rather than implying that the method carries no meaning for a theory of the nature of reality. That Mead recognizes the metaphysical implications of a methodology, however, is indicated by his criticism of Cooley's social psychology, which will be dealt with more fully in the next chapter. Mead says that Cooley's position is:

. . . inevitably introspective, and his psychological method carries with it the implication of complete solipsism. . . . Even for Cooley the self presupposes experience, and experience is a process within which selves arise; but since that process is for him primarily internal and individual rather than external and social, he is committed in his psychology to a subjectivistic and idealistic, rather than an objectivistic and naturalistic, metaphysical position. (69:224n.)

Similarly, in dealing with Dewey's work Mead indicates that he does not believe that weighty criticisms will be leveled against Dewey's "philosophical formulation of logical doctrine," which attempts to bring thinking within conduct that is a part of nature, as much as against "the metaphysical implication of the doctrine." (68:76) By and large, Mead's thinking indicates that the acceptance of the scientific method in the philosophical field means the reconstruction of our basic outlooks in accordance with the demands of that method.

Mead's view of the philosophical task is that it is to interpret the results of science.

Philosophy has in this as well as in other centuries occupied itself with the interpretation of what science has accomplished. In modern times science and philosophy are separated from each other. Science reaches certain results. It tests them. We can act upon

them. Philosophy has been occupied with the question of meanings. Some philosophers feel that philosophy goes further and can criticize the propositions, the presuppositions of science. But as a general rule it can be said that what philosophy has been doing, especially since the time of the Renaissance, is to interpret the results of science. (70:343)

Philosophy in modern times has the knowledge which the scientist, through the operation of the experimental method, has established. The appropriate philosophical task is not to set up an alternative way of knowing or to claim access to a reality that is beyond the manipulative and cooperative verification of the experimental method, but to see what is involved for our established patterns of behavior and belief in that method and its results.

As we have seen, the method and results of modern science have come into a world which continues to use the fundamental attitudes and beliefs of an earlier point of view. Many of our basic beliefs, generated in a pre-scientific world, have been carried over uncritically into a modern scientific world. Our intellectual frames of reference have been inherited for the most part from an Aristotelian tradition and are maintained intact while we also accept the method and fruits of experimental science. Philosophy's task is to adjust our basic beliefs, our concepts, our frames of reference, in the light of our modern science.

Mead did not believe that we could maintain the earlier dogmas and the modern scientific attitude compartmentalized, each allotted its share in the conduct and interpretation of life. The scientist insists that "science can find its problems anywhere. . . . There is, then, an inevitable conflict between a view of the world which is dogmatic and the method used by science." (70:258) Mead states his belief that the method of science will be affirmed over the method of dogma. "You cannot have two methods of conduct which are separated from one another. In the end your scientific conduct will be dominant, as far as dogma is concerned." (70:289) If we can no longer look to established dogmas, fortified by a reality that is beyond

the reach of experimental inquiry, for the organizing patterns of our lives, we should remake our basic frames of reference so that they will be consonant with the achievements of the modern scientist. The philosophical task that Mead is indicating is the reconstruction of our earlier beliefs in the light of the method, attitude, and findings of modern science, a recreation which will give an adequate and verifiable explanation of human conduct.

In Mead's view, then, we can no longer accept with complacency the dogma that phenomena of mind are beyond the realm of scientific inquiry. His interest is in giving a verifiable, empirical account of mind that will replace the earlier views. To account for mind, in terms of its established place in the eternal order of the universe and to interpret individual minds as earthly manifestations of this higher principle, is to offer an explanation with which we cannot deal scientifically. It does not isolate any determinable conditions which make a difference in the behavior of things. The scientific account, which will replace the earlier conceptions, will make clear the observable conditions of mental behavior. Mead's view of scientific methodology means that an adequate view of mind will be in terms of verifiable mechanisms and behaviors which are sufficiently empirical and public that we can arrive at some agreement on the genesis and functioning of mind in human affairs.

In Mead's opinion it is the behavioral approach to the problem of mind that meets the test of the research attitude. In this approach the phenomena of mind can be dealt with in terms of observable differences in the behavior of organisms. Such an approach is made in terms of conditions that are sufficiently determinate that our beliefs about mind can be confirmed.

THE THEORY OF ORGANIC EVOLUTION

Mead regards the Darwinian hypothesis of evolution, the explanation that forms originate in the life process, as "one of the most fruitful and important ideas that has come to man." (70:197) With the concept of organic evolution:

. . . you can explain the origin of new forms by means of causes which lie behind, you do not have to say that there is a creator having an idea of a form and then fashioning it after that idea of his in order to carry out some purpose which he has in mind. You can simply show that causes operating in a certain way will lead to the appearance of new forms, and so you can explain the latter mechanically. (70:270)

The theory of organic evolution explains the origin of species or life-forms in terms of their variations from earlier species. We are no longer bound by the earlier, Aristotelian dogma that forms are the reproduction in matter of their eternal essences, and that there is no transition from one life-form to another.

To Mead the evolutionary hypothesis means that the various life-forms are to be viewed in terms of the adjustment tendency inherent in the behavior of all living creatures.

Darwin showed a life-process appearing in different forms; and he showed these differences as expressing the life-process now in this environment, now in that. Then he was able to show how, through variations, a new form might conceivably arise which would be better fitted to meet the exigencies of a new environment. Take such a situation as that which appeared during the glacial epoch, when a great ice sheet came down over Europe and America. It brought with it a different climate, different living conditions; and the forms that survived had to change their characters. The woolly elephant, the hairy hippopotamus—forms of the sort of which we find the remains—were adjustments to a new environment. (70:127-8)

The origin of forms is explained in terms of adjustments made to new environing conditions. New forms emerge from the adjustments which organisms make in their efforts to maintain themselves. "There are slight variations that take place in the individual forms and occasional more pronounced variations that we call 'mutations.' Out of these different forms gradually arise." (70:364-5)

Mead points out that the question of the particular form of the evolutionary hypothesis is not as important as the general idea that the adjustive life-process will determine the form of the organism.

The question as to whether a Darwinian or Lamarckian hypothesis is to be accepted is not really of such great importance. The important thing about the doctrine of evolution is the recognition that the process takes now one form and now another, according to the conditions under which it is going on. That is the essential thing. One must be able to distinguish the process from the structure of the particular form, to regard the latter as being simply the organ within which a certain function takes place. If the conditions call for a certain type of organ, that organ must arise if the form is to survive. If conditions call for an organ of another sort, that other sort of organ must arise. That is what is involved in the evolutionary doctrine. (70:166)

The significance of the evolutionary conception is that it replaces the dogma that forms are a precondition of what we find with an explanation of forms in terms of determinable and observable conditions, an explanation which is open to verification.

In Mead's view the evolutionary hypothesis puts man totally within the evolutionary life-process. "Darwin regarded the animal as that out of which human conduct evolves, as well as the human form and if this is true it must be that in some sense consciousness evolves." (69:19) Evolution implies that all of man's characteristics, his functions as well as his physiological structures, are to be explained as emergents from prior conditions. Mead insists that we take the theory of evolution seriously and recognize its implication that the entire life of mind, as the emergence of all other forms, is to be explained in terms of the adjustments which an organism makes to its environment. As we shall see later, Mead recognizes that the environmental conditions which furnish an explanation of mind are social as well as physical.

In Mead's view evolution means that human conduct in its entirety is to be explained as continuous with the non-human. ". . . Mental behavior or phenomena can be explained in terms of non-mental behavior or phenomena, as arising out of, and as resulting from complications in, the latter." (69:11) Mead sees that in the concept of the uninterrupted sequence of the entire organic process there is no gap between the non-

mental and the mental and no imposition upon the natural process of something foreign to that process.

To recognize the continuity of the life-process is not to deny the appearance of qualitatively new forms and behaviors but to define them as the novel developments within the evolutionary process. In Mead's view, "When things get together, there then arises something that was not there before, and that character is something that cannot be stated in terms of the elements which go to make up the combination." (71:641) The emergent is more than the sum total of the separate and individual elements that occasion it. The evolutionary view sees the emergent as a genuinely novel event, conditioned by its historic process, but resulting in something that was not there before. Mead's emergent view of mind does not read mind back into the conditions that precede it, but sees the mental growing out of a prior set of conditions and establishing new relationships in its emergence.

THE INADEQUACY OF DUALISM

Mead sees the emergent theory of mind, which he finds implicit in the theory of organic evolution, replacing an earlier, dualistic view.

The result of such a movement as that which we are considering [the development of research science] is to get away from the abstractions which are involved in this separation of soul and body, of mind and body, of the spiritual and the physical. (70:281)

A large part of the history of thought has been taken up with the dualistic presupposition.

. . . It is the technical function of philosophy so to state the universe that what we call our conscious life can be recognized as a phase of its creative advance. The otherworldliness of the reason was the theme of ancient philosophy, and the otherworldliness of the soul that of Christian doctrine, and the otherworldliness of the mind that of the Renaissance dualisms. It has been the long, long trek from this world of sense and sense perception, where intelligence could have no abiding city, to the city not made with hands, eternal in the heavens. But from the days when Galileo watched

the swinging lamps in the cathedral and set his clay marbles rolling down the inclined plane, timed by his water clock, and thus compelled the universal reason to submit its findings to the test of perceptual experience, intelligence has been placing its reflective powers more and more fully at the service of society in its task of building the earthly city. As experimental science it has proved itself entirely competent. (71:515)

From Mead's point of view dualism is not a satisfactory belief because, in the first place, it presents unsolvable problems. Modern thought:

has sought to retain the Ivory Tower of contemplation, while it has combined it with architectural motifs which from the standpoint of the Ivory Tower were bizarre and incongruous, namely, that of the experimental method of modern science and that of the primacy of the individual's experience. (71:513)

The effort of modern thought to carry on with the dualistic view has made a large part of modern philosophy a "wrangle" over issues that are "insoluble in the form which they are forced to take." ". . . The problems of epistemology, of mind and body, and of mechanism and teleology" (71:514) are problems created by the uncritical alliance of the dualistic view with the advance of science. For Mead, the clear implication of the evolutionary hypothesis is that the old problems, contingent as they are upon the dualistic presupposition, are no longer pertinent.

Secondly, not only is dualism unfruitful because of the insoluble problems which it presents, but mind is not explained at all in the dualistic view; its existence is taken for granted as a native endowment of the individual. The dualistic hypothesis begs the question because what is to be explained is assumed as already given in advance. Such a presupposition does not provide us with an experimentally verifiable explanation of the origin, development, and functioning of reflective behavior. It does not lead to confirmable knowledge that is fruitful in helping us to guide and control conduct.

In the third place, dualism, in Mead's opinion, is incompatible with the implications of the evolutionary hypothesis,

which rests upon the empirical method of science. As we have noted, Mead sees that the evolutionary belief means that the entire range of human activity is continuous with its biological conditions. He holds that we cannot admit the evolutionary concept up to a certain point in our description of human nature and then shut off the hypothesis as having nothing to do with the explanation of the higher thought processes. As we have seen, Mead would not admit that science can be compartmentalized and so kept from certain aspects of human activity, for the experimentalist will find his problems, data, and solutions anywhere.

Fourth, Mead's acceptance of the scientific method, and its principle of parsimony, enables him to regard dualism as an unnecessary hypothesis.

Science has gone on the basis of the law of parsimony, and it has been justified. On the whole, science in selecting the simplest theory has found it more successful. The law of parsimony is supported by the actual advance of science itself. (71:88)

A thorough acceptance of the experimental method and the implications of organic evolution makes the dualistic presupposition superfluous, for the concept of emergence, inherent in the evolutionary hypothesis, explains those aspects of human conduct which formerly were explained by an unconfirmable dogma.

In Mead's view, then, an evolutionary philosophy explains reflective intelligence as arising "within the world of things about us" and not a creation of "the Platonic-Christian city not made with hands, eternal in the Heavens." (71:517) Mind is to be seen as the operation in the affairs of life of that method which leads to such a control of situations that consequences may be obtained or avoided. Evolution implies that acts directed by their consequences emerge from a prior biological condition through the operation of observable conditions. The task of an emergent view of mind is to make clear the process involved, and "to work out the implications of the fact that reason has arisen in the process of social evolution." (71:519)

THE OBLIGATION OF A BEHAVIORISTIC VIEW OF MIND

Mead believes that the acceptance of the emergent view of mind implied in the Darwinian position imposes the obligation of explaining all the aspects of reflective intelligence so that none are neglected or denied or explained away. One attempt to deal with human nature and not fall into any of the pitfalls of dualism is found in the behaviorism of J. B. Watson, where an attempt is made to describe human conduct without the use of such concepts as 'mind' or 'consciousness' or 'meaning.' These terms, in their traditional usage, brought with them the conception of a psychical stuff which explained the rationality of man. Extreme behaviorism sought to explain man's conduct without any use of these introspective terms at all.

As we shall see in greater detail in the following pages, although Mead accepts the behavioristic approach, he considers Watson's behaviorism a grave oversimplification of the nature of human behavior and an inadequate description because of its denial of the very aspects of human conduct that make that conduct distinctively human. Mead sees that we should not deal with mind in the fashion of extreme behaviorism, denying or reducing it so that it will be amenable to description in terms of animal mechanisms. An adequate emergent view must accept the responsibility of dealing with mind as qualitatively different in kind from animal behavior. Meanings, consciousness, attitudes, purposes, ideas—all that is involved in reflective intelligence—should be dealt with as emergent from non-human behavior but should not be resolved into that prior behavior level. The emergent hypothesis means that qualitatively new characteristics of behavior arise totally within the natural life process.

The denial of mind as dualistic, as substantive, as psychical in the sense of being totally different in kind and working from the non-mental, does not include the denial of mind as emergent, as functional, as a qualitatively different kind of behavior arising from the non-mental. This denial constitutes one of the basic fallacies of radical behaviorism. Watson assumes that

because mind as a dualistic entity is rejected, therefore mind in any and all senses must be rejected. Though Mead's emergent view also rejects mind as a psychical substance, it affirms the reality of mind as instrumental and symbolic function. Because mind is not a mysterious spiritual something, it does not follow that mind cannot signify a distinctive behavior that involves a sharing of experience by means of communication. The problem for an emergent view is to describe the conditions involved in non-human behavior so that mind and all that it involves can be explained as an emergent from those prior conditions.

"Mead's endeavor is to show that mind and the self are without residue social emergents," states C. W. Morris in introducing Mead's thought, and, ". . . he has for the first time isolated the mechanism of this genesis." (69:xiv, xv)

SUMMARY

Basic in Mead's position is the belief that modern science is research science, that we now have the research method (which Mead identifies as the reconstruction of existing belief by the use of the exceptional event) as our best intellectual tool, and that this method together with the beliefs which it has tentatively established carries certain clearly defined implications concerning the nature of mind. In the first place, our explanation of the nature and working of reflective intelligence should be in terms of empirical conditions which are sufficiently determinate that some observable difference is created by them. In the second place, the evolutionary hypothesis clearly implies that mental conduct has emerged from a prior, non-mental behavior through the process of adjustment. The theory of evolution means that the mental is continuous with the non-mental and that a genuine and novel emergent is involved in the appearance of mind. In the third place, the acceptance of the research method and its implication leads to the rejection of all dualistic explanations of mind and presents the problem of providing a description which will neither deny nor slight any of the characteristics of reflective behavior.

CHAPTER II

The Background of Existing Belief in Psychology and Social Psychology

Nineteenth Century Psychologies.—The Social Psychologists.—Radical Behaviorism.—The Approach of Social Behaviorism.—Some Educational Implications.—Summary.

MEAD, making use of his analysis of scientific method, realizes that any explanation of mind is in a context of existing belief and that psychologists have been attempting to utilize the new knowledge and perspectives, particularly the evolutionary hypothesis. This emphasis on the biological foundations of conduct has led psychologists to develop the theories of associationism, parallelism, functionalism, and behaviorism, all of which Mead believes are efforts to adjust our beliefs about mind to the new insights that are at our disposal.

Mead, accordingly, develops his theory of mind by examining and showing the defects in two general alternative positions, traditional nineteenth century psychology, and extreme behaviorism. First, he considers that the nineteenth century psychologies of associationism, parallelism, and even functionalism all contain a common dualistic presupposition. He also holds that existing social psychologies, which for the most part have grown out of the customary psychologies of the individual, have not gotten away from the same assumption. Part of Mead's contribution is to show how this traditional view is inadequate and how his own reconstruction avoids the basic fallacy. Second, Mead recognizes that John B. Watson's behaviorism was an attempt to formulate a psychology that would avoid the difficulties of the traditional, introspective position. Extreme behaviorism, as Mead interprets it, is an effort to describe human conduct by substituting for the con-

cepts and methods of introspection, a thoroughly empirical account of observable phenomena. Mead's approach is also behavioristic in that he tries to interpret human nature without resorting to the older mentalism, but as we shall see, Mead's explanation differs significantly from what he considers to be Watson's oversimplified behaviorism.

NINETEENTH CENTURY PSYCHOLOGIES

Mead's hypothesis is that the traditional nineteenth century psychologies and social psychologies share one basic inadequacy: they all fail to account for the origin, growth, and functioning of mind because their interpretations presuppose the existence of individual minds. If individual minds and selves are taken ". . . as logically prior to the social process in which they are involved . . . ," the theory built upon that assumption ". . . cannot explain that which is taken as logically prior at all, cannot explain the existence of minds and selves. . . ." (69:223)

It is Mead's belief that:

According to the traditional assumption of psychology, the content of experience is entirely individual and not in any measure to be primarily accounted for in social terms, even though its setting or context is a social one. (69:224n)

Mead insists that his view be clearly distinguished from those in which mind is:

. . . in some sense a native endowment—a congenital or hereditary biological attribute—of the individual organism, and could not otherwise exist or manifest itself in the social process at all; so that it is not itself essentially a social phenomenon, but rather is biological both in its nature and in its origin, and is social only in its characteristic manifestations or expressions. According to this . . . view, moreover, the social process presupposes, and in a sense is a product of, mind; in direct contrast is our opposite view that mind presupposes, and is a product of, the social process. The advantage of our view is that it enables us to give a detailed account and actually to explain the genesis and development of mind; whereas the view that mind is a congenital biological endowment of the individual organism does not really enable us to explain its nature and

origin at all: neither what sort of biological endowment it is, nor how organisms at a certain level of evolutionary progress come to possess it. (69:224)

In Mead's view, this assumption of mind as an inherited endowment of the individual causes all who make it to overlook the datum of communication, which is the only basis upon which an empirical view of mind can be given. In connection with his criticism of Wundt, which will be dealt with in the next pages, Mead says that Wundt:

. . . entirely fails to illuminate the bearing that the context of social experience has upon the existence and development of mind. Such illumination is provided *only* by the behavioristic analysis of communication, and *by the statement of the nature of mind in terms of communication* to which that analysis leads.* (69:51)

Mead shows that because of the presupposition of individual mind we are prone:

. . . to approach language as the philologist does, from the standpoint of the symbol that is used. We analyze that symbol and find out what is the intent in the mind of the individual in using that symbol, and then attempt to discover whether this symbol calls out this intent in the mind of the other. We assume that there are sets of ideas in persons' minds and that these individuals make use of certain arbitrary symbols which answer to the intent which the individuals had. (69:14)

Such an approach to language, from the point of view of *intents in the mind* which are to be expressed, prevents the description of language in its larger context of social cooperation in ongoing non-mental acts. It is in the latter field that Mead insists we are to look for an explanation of the genesis of individual mind.

The effect of the individualistic assumption is to prevent psychologists from seeing communication as a psychological datum in terms of which mind may be explained. In the traditional assumption language is an affair which a mind invents because it wants to communicate its ideas to another. The minded self, the self of introspection, is an island and each self

* Italics not in original.

is only sure of his own island. (32:176) Or again, as Mead phrases it, the self of the introspectionist is that of a prisoner in a cell, who is shut up in his own cell of consciousness, and sets about to contrive some way of communicating with other individuals who are also prisoners. (69:6n) Language is not viewed as a special kind of behavior that emerges out of a prior form of conjoint behavior. It is not a psychological datum; it is an invention of the individual minded self.

The individualistic presupposition is, in Mead's analysis, basic in associational psychology, which was the belief of Darwin's period. It assumed that "acts had a reason for existence because they expressed something in the mind of the individual." (69:16)

The psychology of Darwin assumed that emotion was a psychological state, a state of consciousness, and that this state could not itself be formulated in terms of the attitude or the behavior of the form. It was assumed that the emotion is there and that certain movements might give evidence of it. The evidence would be received and acted upon by other forms that were fashioned like itself. That is, *it presupposed the conscious state over against the biological organism*. The conscious state was that which was to be expressed in the gesture or the attitude. It was to be expressed in behavior and to be recognized in some fashion as existent in the consciousness of the other form through this medium of expression. Such was the general psychological attitude which Darwin accepted.* (69:17)

Because of this dualistic assumption, according to Mead's thinking, associationism sees language as an invention of a prior existing mind.

. . . From the standpoint of an associational psychology—one that recognizes only ideas and their connections, or at least depends upon these for the psychological analysis of the contents of consciousness—language is almost unavoidably conceived of as an invention. While the more modern psychologist would not be guilty of the absurd theories of the origin of language . . . which belong to the rationalism of the eighteenth century, a thorough-going associational psychology, whether Herbartian or English, can give

* Italics not in original.

no account of language processes which in principle differs from these. (13:379-80)

The associationist is thus deprived of the use of language as a condition in terms of which the psychical might be explained.

The Herbartian psychology cannot, in so far as it is consistent in theory or mechanism, pretend to be anything more than an applied science within the field of philology. . . . The situation is a very different one when the psychologist maintains that language is the field of psychology. (13:383)

In the associationist position psychology is the handmaid to philology and "such an evolution as language cannot exist as a psychological datum." (13:379)

In Mead's view, the psychophysical parallelist abandoned the static psychology of associationism because it did not deal adequately with the dynamic aspects of experience, such as attention, selection, and interest. (69:18-27) Yet psychophysical parallelism manifests, in another form, the dualistic inadequacy.

There is a persistent tendency among present-day [1910] psychologists to use consciousness as the older rationalistic psychology used the soul. It is spoken of as something that appears at a certain point; it is a something into which the object of knowledge in some sense enters from without. It is conceived to have certain functions—in the place of faculties. It is as completely separated from the physical body by the doctrine of parallelism as the metaphysical body was separated from the metaphysical soul by their opposite qualities. (32:174)

The doctrine of parallelism, as Mead sees it, makes as insuperable a dualism between consciousness and the physical world as did associationism's presupposition of "the conscious state over against the biological organism."

In spite of much philosophizing, consciousness is identified in current psychological practise with the field which is open to introspection, and the object of knowledge is placed within this field, and related to the physical world—spoken of as an external field of reality—by a parallelistic series. (32:174)

In Mead's view, the basic inadequacy of all psychophysical parallelism is shown in Wundt's attempt to explain communication. Wundt attempted to carry out an interpretation of the processes of human society, especially communication, in terms of the parallelism between the conscious processes and the physiological processes of the central nervous system. In this theory, the gesture which an individual makes must in some way be reproduced in the experience of the second individual so that both can have the same idea. But Wundt's parallelism, in Mead's opinion, does not provide any way for this to happen.

If we assume that there is a certain psychical state answering to a physical state how are we to get to the point where the gesture will arouse the *same* gesture in the attitude of the other individual? . . . If we say that gesture "A" has idea "a" as answering to it, gesture "A" in the first form calls out gesture "B" and its related idea "b" in the second form. Here the idea that answers to gesture "A" is not idea "a," but idea "b." Such a process can never arouse in one mind just the idea which the other person has in his. (69:49)

Hence, Mead cannot find in Wundt's parallelism any way for the responding individual to get the same idea as that of the individual giving the gesture.

The difficulty is that Wundt presupposes selves as antecedent to the social process in order to explain communication within that process, whereas, on the contrary, selves must be accounted for in terms of the social process, and in terms of communication; and individuals must be brought into essential relation within that process before communication, or the contact between the minds of different individuals, becomes possible. . . . It does not occur to Wundt to account for the existence and development of selves and minds within, or in terms of, the social process of experience; and his presupposition of them as making possible that process, and communication within it, invalidates his analysis of that process. For if, as Wundt does, you presuppose the existence of mind at the start, as explaining or making possible the social process of experience, then the origin of minds and the interaction among minds become mysteries. (69:49-50)

What is necessary, according to Mead's hypothesis, if an adequate and empirical account of mind is to be given, is that com-

munication be taken as a datum in terms of which mind can be understood as arising from a non-mental form of behavior.

In Mead's opinion, functionalism, by which he presumably means the psychology of James and Angell, is not free from the dualistic presupposition.

Functional psychology has set itself the program of assimilating the purposive character of conscious processes—or of consciousness as it is termed—to the evolutionary conception of adaptation, but instead of making consciousness in human individuals a particular expression of a great process, as is demanded of a philosophy of nature, it comes in generally as a new and peculiar factor which even demands a new formula of evolution for its explanation; it involves a new evolution superinduced upon the old. (32:174)

Functionalism has attempted to take up the evolutionary process in terms of which purposive behavior is to be understood, but it has failed to treat consciousness as a naturalistic emergent within the life-process and has superimposed mind upon an earlier, unconnected evolutionary process.

In another context Mead speaks specifically of James and Angell.

In Professor James's treatise the self is brilliantly dealt with in a chapter by itself. Within that chapter we see that, as a self, it is completely knit into a social consciousness, that the diameter of the self waxes and wanes with the field of social activity, but what the value of this nature of the self is for the cognitive and emotional phases of consciousness we do not discover. In the genetic treatment given by Professor Angell, the last chapter deals with the self. Here indeed we feel the form of sociality is the culmination, and the treatment of attention, of the impulses, and the emotions, and finally of volition involves so definitely a social organization of consciousness, that in the light of the last chapter the reader feels that a rereading would give a new meaning to what has gone before. (31:402)

Thus even these functional psychologists, as Mead sees it, also fail to make use of the social preconditions of human communication in accounting for mind and have brought in consciousness as an alien factor instead of as an emergent within nature. They have not made use of conditions that are prior to the

mental to show how the mental emerges from those conditions.

Such an attitude as that of the functionalist, Mead feels, is to be corrected by understanding mind as an affair of the environment in its relations with certain organisms rather than as a development exclusively within an organism.

Earlier psychologists—and many psychologists of the present time, for that matter—assume that at a certain point in the development of the organism consciousness as such arises. . . . The suggestion I have made is that consciousness, as such, does not represent a separate substance or a separate something that is superinduced upon a form, but rather that the term “consciousness” (in one of its basic usages) represents a certain sort of an environment in its relation to sensitive organisms. (69:329)

As long as the individualistic presupposition in one or another of its forms is made, the psychologist is prevented from explaining mind in terms of communication—and to Mead that is the only way in which the dualistic approach can be circumvented.

Thus, according to Mead, the traditional psychological orientations, which make the presupposition of individualistic mind a logical and biological precondition of social processes, fail to furnish an empirically adequate account of the origin and development of individual mind, self, or consciousness because they presuppose the very thing which is to be explained. They beg the question. The task of psychology is to explain how the psychical, the experience of the individual which is uniquely his own, takes place. The problem is to explain how individual-minded selves appear. It is Mead's view that an empirical account should not make use of a prior existing mind in any way. But this is exactly what these individualistic psychologies do. The associationalist assumes the existence of mental states forthright. The parallelist likewise assumes the psychical to begin with in his explanation of the parallelism of the mental and the physiological. The functionalist, in Mead's view, has not made use of the principle of biological continuity but has begged the question by imposing the mental upon a prior biological evolution. The mechanism making possible the emergence of mind has not been revealed in any of these

positions because of the presupposition of discrete, islanded minds as the condition of communication. All of these so-called explanations of mind really turn it into a mystery. The only way to avoid this, according to Mead, is to make a new approach to the problem and, starting out from those observable and determinable communicative acts which precede consciousness, seek the genesis of individual minds within that social process.

THE SOCIAL PSYCHOLOGISTS

Mead also finds the same difficulty in social psychology, which was his own field of specialization. He surveys the development of social psychology from Darwin and Wundt to Cooley and is unable to find any adequate use of the social as the precondition of the emergence of individual mind.

According to Mead, "the particular field of social science with which we are concerned is one which was opened up through the work of Darwin and the more elaborate presentation of Wundt." (69:42) Although the associational psychology with which Darwin worked was inadequate, as we have seen, Mead considers that Darwin opened up the field of social psychology by his hypothesis that human conduct evolves out of animal behavior and that the explanation of human conduct should be in terms of gestural acts, which he assumes have the function of expressing emotions. This assumption of Darwin's betrays his own inadequate psychology, for it presupposes that acts occur because of something already in the mind of the individual. (69:16) Nevertheless, in Mead's view, Darwin has indicated an approach to the explanation of consciousness from the point of view of cooperative behavior.

Wundt, according to Mead, carried out the type of approach to social psychology which Darwin suggested by isolating the gesture "as a part of a social act." (69:42) Wundt did not consider that the primary function of the gesture was to express the emotion of the organism and, hence, to become a stimulus to another organism. The stimulus value of the gesture, to Wundt, was that it was a part of a social set in which the organ-

isms were involved. (69:44) But Wundt's psychophysical parallelism, as we have seen, is not adequate to explain the social nature of communication and how it originates and functions. "Wundt preserves a dualism or separation between gesture (or symbol) and idea, between sensory process and psychic content, because his psychophysical parallelism commits him to this dualism. . . ." (69:50-1) Because he presupposes mind to start with, his social psychology does not give an adequate empirical account of the genesis of mind.

The social psychologists who followed Wundt attempted, according to Mead's analysis, to find the explanation for how the gesture of one individual calls out an appropriate response in another by means of imitation. Imitation, it was believed, would give an account of the origin of communication. Here Mead refers to Tarde (69:53) and Baldwin and Royce (31). Imitation was supposed to be the process or means whereby the gestural stimulus with its meaning called out the same stimulus and meaning in another.

Mead shows that imitation is not an adequate mechanism because it does not take care of the kind of situation that we have in communication. (69:59) Communication is not a matter of being stimulated as the other individual is stimulated and responding as the other does. That sort of communication would never get anywhere. Communication is a matter of a common stimulus leading to an *appropriate* response in the second individual, not necessarily the same response. Imitation, as the tendency to reproduce what one sees or hears others do, cannot explain how the organism uses a stimulus to carry on its essential life processes; for according to the theory of imitation, a stimulus would be a stimulus "to reproduce what was seen or what was heard" and not a stimulus to carry on the essential life processes in which the social organism is engaged. (69:60)

Imitation, to make sense, has to be recognized as something that happens after there is a consciousness of other selves, not before. It is not a primitive response or a general instinct. (69:52)

When another self is present in consciousness doing something, then such a self may be imitated by the self that is conscious of him in his conduct, but by what possible mechanism, short of a miracle, the conduct of one form should act as a stimulus to another to do, not what the situation calls for, but something like that which the first form is doing, is beyond ordinary comprehension. (31:405)

Mead believes, therefore, that those who use imitation to explain the social processes, especially communication, beg the question just as the individualistic tradition does. The social psychologists who use imitation to explain the social process of language all presuppose some sort of mind made up of ideas, receiving impressions from without and reproducing what is seen or heard, in order to get the social process under way. There is no adequate mechanism in imitation to explain the origin of language unless one makes the assumption of mind to keep the imitative propensity directed toward the carrying on of the organic process rather than the mere reproduction of what is seen or heard. Such an assumption takes for granted that which is to be explained. Thus in the social psychologies which use the theory of imitation to explain the complex social processes which are involved in language, Mead finds the presupposition of the prior existence of consciousness.

Mead has this basic criticism to make of all social psychologists:

If we except Professor Cooley, in his *Human Nature and the Social Order*, and his *Social Organization*, the sociologists have no adequate social psychology with which to interpret their own science. The modern sociologists neither abjure psychology with Comte, nor determine what the value of the social character of human consciousness is for the psychology which they attempt to use. (31:402)

Writing at a later period Mead also questions the objective introspective method of Cooley:

Does Cooley's psychological account of the self lying in the mind serve as an adequate account of the social individual in the objective life of society? The crucial point, I think, is found in Cooley's assumption that the form which the self takes in the experience of

the individual is that of the imaginative ideas which he finds in his mind that others have of him. (63:703)

Society is psychical to Cooley; its locus is in the mind. The experience in which the self arises is an inner, psychical experience rather than a social process, and hence Cooley also begs the question, for it is exactly that internal psychical process which psychology must explain rather than take for granted.

. . . Society really has no existence except in the individual's mind, and the concept of the self as in any sense intrinsically social is a product of imagination. Even for Cooley the self presupposes experience, and experience is a process within which selves arise; but since that process is for him primarily internal and individual rather than external and social, he is committed in his psychology to a subjectivistic and idealistic, rather than an objectivistic and naturalistic, metaphysical position. (69:224n)

Mead summarizes in the following passage the inadequacy which he finds in all social psychologies.

Social science in anthropology, in sociology pure and impure, dynamic and static, has not as yet found its scientific method. It is not able to satisfactorily define its objects, nor to formulate their laws of change and development. Until the social sciences are able to state the social individual in terms of social processes, as the physical sciences define their objects in terms of physical change, they will not have risen to the point at which they can force their object upon an introspective psychology. (32:176)

Thus Mead finds the positions of individualistic-introspectionist psychologies and existing social psychologies inadequate because of one basic fault: they fail to divulge how individual minded selves arise. Mead finds that all the psychologies available to him beg the question by presupposing the very thing that they set out to explain. They all fail to remove the mystery involved in the inherited dualism, that individual minds are somehow in existence, distinguishable from the bio-social processes, in terms of which, since Darwin, they are to be explained. The mechanism whereby mind emerges is not made clear. We still are left with the problem of mind and body, because of the failure of psychology to define the context and to

isolate the mechanism by means of which individual minded selves appear.

According to Mead's position, the traditional psychologies and social psychologies of the nineteenth century fail to make available to verification by competent inquirers the manipulative and determinate conditions under which individuals come to behave intelligently. As we have seen in the preceding chapter, Mead feels that a satisfactory account of mind will be such that the community of scientists, carrying through the inquiry which the explanation indicates, will agree upon the adequacy of the hypothesis. The failure of the individualistic and social psychologists lies in the fact that they have isolated no mechanism which is sufficiently verifiable for a consensus of belief to be attained. Until we have a description of mind in terms of the testable conditions that make possible reflective behavior, Mead feels we can have no scientifically acceptable belief about mind.

The more drastic reconstruction of the individualistic inadequacy in psychology, Mead feels, can be accomplished only by a behavioristic account which sees communication as fundamental to the nature of mind. Mead feels that the social psychologists from Wundt through Cooley all fail:

. . . to illuminate the bearing that the context of social experience has upon the existence and development of mind. Such illumination is provided only by the behavioristic analysis of communication, and by the statement of the nature of mind in terms of communication to which that analysis leads. (69:51)

RADICAL BEHAVIORISM

The second alternative general psychological position in contrast with which Mead develops his conception of mind is that of Watsonian behaviorism. Watson's effort was to give an explanation of human conduct on the sole basis of observable behavior. He was reacting against the traditional dualistic view with its concepts of mind, consciousness, and meaning, and was attempting to give an account of human conduct without the use of these concepts.

Mead believes the extreme behaviorist has rendered psychology a real service in his insistent criticism of the method of introspection. Mead is a behaviorist in the sense that he believes that:

. . . you get a surer clue if you take the man's action than if you take certain static contents and say these are the consciousness of the man and that these have to be approached by introspection to be reached. (70:399)

Mead's approach is behavioristic rather than the analysis of already existing conscious states through introspection, but his behaviorism is significantly different from Watson's.

Mead considers that Watsonism, in its effort to explain human conduct without any use of 'mind' or other introspectionist terms, contains essentially four inadequacies. First, its conception of thought is inadequate. Second, the polemic against introspection is so taken that the peculiarly psychological aspects of experience are denied. Third, Watsonism has an inadequate stimulus-response category. Fourth, the view of language of extreme behaviorism neglects the social aspect of communication.

Watson's inadequate description of thought, according to Mead, results from his position that psychologists need not "look for anything more elaborate in the thinking process than the mere conditioning of reflexes by vocal gestures." (69:102) The illustration of the conditioned reflex that Mead uses is that of the child who is afraid of a white rat because a loud noise was made every time the rat was presented. The fear response to a loud noise is an instinctive or inherited reaction tendency which becomes associated with the appearance of the rat. Gradually the appearance of the rat brings on the reaction of fright which the sound occasioned. In a similar fashion words are connected through repetition with certain objects or occurrences so that the word calls out the response which was formerly connected with the object. The word 'chair' is substituted for the pushing forward of a chair so that eventually the act of sitting is called out by the word. (69:101) This is the

mechanism of thinking and all that there is to thinking, according to the view that Mead is criticizing.

Mead sees that the "language process is peculiarly adapted to such a conditioning of reflexes" (69:101), and that it does adequately describe a great many experiences. It describes such conduct as that of a trained body of troops very well. But this conduct is automatic; its efficiency or success depends on the lack of thought by the mass of men. What the reflex does not account for is the conduct of the officers.

What we recognize is that this statement does not do justice to the thinking that has to be done higher up. . . . Now if the thinking is done higher up under the same conditions the behaviorist evidently fails to bring into account what is peculiar to planning. Something very definite goes on there which cannot be stated in terms of conditioned reflexes. (69:102)

The thinking which Watson describes is that of the lower animals. The important distinction that he overlooks is that human conduct is consciously purposive.

Watson, in Mead's view, "attempts to reduce all 'mental' phenomena to conditioned reflexes and similar physiological mechanisms—in short, to purely behavioristic terms." (69:10) The reduction of purposive conduct to the level of non-mental mechanisms has the significance of denying that purposive conduct altogether. This is unsuccessful ". . . for the existence as such of mind or consciousness, in some sense or other, must be admitted—the denial of it leads inevitably to obvious absurdities." (69:10)

Mead points out that:

You can explain the child's fear of the white rat by conditioning its reflexes, but you cannot explain the conduct of Mr. Watson in conditioning that stated reflex by means of a set of conditioned reflexes, unless you set up a super-Watson to condition his reflexes. (69:106)

Given the product of thinking in advance, then the control necessary for conditioning the reflex in the first place is provided. But the product of thinking is not given in advance in

reflective thought. The control comes from the process itself. In the case of the child and the rat, or of the soldier, the control of the conditioning is outside the organism. When Watson sets out to condition the child or when the officers plan their maneuvers, the control is internalized. Watsonism does not provide for that kind of thinking in which the control is within the act of the participants, contributed by the continuing interaction of the organism with its surroundings.

In Mead's view, Watson's conditioning process presupposes a different kind of thought process. Thinking cannot be explained by the conditioned reflexes which result from it. Watson is not describing the act of thought in his conditioning reflexes but what happens after one has an idea.

. . . Watson's statement of the mere conditioning of the reflex, the setting off of a certain set of responses when the word is used, does not seem to answer to this process of getting an idea. It does answer to the result of having an idea, for having reached the idea, then one starts off to accomplish it, and we assume that the process follows. The getting of an idea is very different from the result of having an idea, for the former involves the setting-up or conditioning of reflexes, which cannot, themselves, be used to explain the process. (69:107)

Involved in Watson's inadequate treatment of thought is a second criticism which Mead makes. Watson, in overthrowing the method of introspection, has denied the content of introspection as well, and has thus removed from the field of psychology those aspects of experience, such as imagery and attitudes, which are peculiarly psychological. Mead insists that the behaviorist, in denying the inner, private aspects of human activity, has interpreted experience in too narrow a fashion. Because the introspectionist's method of looking in on what takes place inside us is inadequate, Watson assumes that there is nothing peculiarly individual in experience for psychology to look into.

Watson, as Mead shows, is saying "Off with their heads!" (69:3) to the very aspects of human experience which actually have enabled man to effect the adjustments and create the sci-

ence which Watson seeks for the field of psychology. Imagery, attitudes, and thoughts are "nothing-buts" to Watson. They are explainable wholly by means of the conditioned reflex. There is no qualitatively different addition to the primitive stimulus-response situation in any human experience.

Mead insists that it is impossible to reduce those aspects of experience to which we have access only by introspection to the observable type of conduct to which Watson wants them to belong. That does not mean that we cannot deal with imagery and the others on a behavioristic basis. We do not have to go back to the introspective psychology of mental states. Mead points out that it is possible to deal with the accepted data of psychology from the point of view of behaviorism without removing that which is peculiar to the individual from the point of view of accessibility.

What one must insist upon is that objectively observable behavior finds expression within the individual, not in the sense of being in another world, a subjective world, but in the sense of being within his organism. (69:5)

"... Part of the act lies within the organism and only comes to expression later; it is that side of behavior which I think Watson has passed over." (69:6) What we have to do is to re-define behaviorism, re-examine the act as the unit of conduct, so that its use in describing the conditions of the act of thought will include those aspects which Watson tries to remove from experience.

In a third criticism, Mead finds Watson's conception of stimulus and response unable to deal with the dynamic aspects of the act. Watson speaks of behavior as being a simple matter of a stimulus in the environment calling forth a response in the organism. "The behaviorist claims that there is a response to every effective stimulus and that the response is immediate,"¹ is Watson's view. His program is, "To be able, given the stimulus, to predict the response—or, seeing the reaction take

¹ John B. Watson, *Behaviorism*, p. 15. New York: W. W. Norton and Company, 1930.

place, to state what the stimulus is that has called out the reaction."² In this oversimplified view there is no provision for accounting for why one stimulus is selected rather than another. The effort of a broader behaviorism is to find place within the act for the correlativity of stimulus and response so that selection of and attention to certain stimuli rather than others can take place.

The position of the extreme behaviorist, in Mead's opinion, has an atomistic conception of stimulus and response. Behavior is an affair of first a stimulus and then a response, and the repetition of these discrete elements constitutes the pattern of human conduct. The abrupt movement from stimulus to response and on to new stimulus and its response gives the behavior that the Watsonist describes a sharply broken, spasmodic nature. Now behavior as a matter of fact is continuous, coordinated, and rhythmical. Our acts are not a series of jerks toward an unplanned end. Our responses to situations are continually guided by the development of the activity. The environment gives continuous guidance to responses as the act develops toward the anticipated close. The field in which our behavior is centered is continually responding to us as we are responding to it. In the light of the activity of the field we redirect our attention to various parts of the situation and respond to those elements which indicate the desired course of the act. This process provides the coordination which holds behavior together. Behavior is not a mere succession of red and white particles of stimulus and response that follow each other in a hit-and-miss manner. There is a controlling unity which pervades the act as a whole and which controls and directs each of the parts. The unity is not a psychical substance as in the older psychology but a cooperation of the agent and a field so that the field is indicative of the outcome of the act. We have in behavior something more than action and reaction as it occurs in physics. We have a situation in which means and consequences become operative. Unless we gain an operative conception of the unity of the organism and its field and of the

² *Ibid.*, p. 18.

role of the environment in continually guiding the responses which the activity entails, our behaviorism will be mechanical and atomistic.

For Mead, Dewey's "The Reflex Arc Concept" pointed out that:

. . . the very attitude of being acted upon by a stimulus is continually affected by the response. We start to do something, and the very process of doing it is continually affecting the very stimulus we have received. . . . The process of responding is always present, determining the way in which we shall receive our so-called "impressions." That is, the organism is not simply a something that is receiving impressions and then answering to them. It is not a sensitive protoplasm that is simply receiving these stimuli from without and responding to them. The organism is doing something. It is primarily seeking for certain stimuli. . . . Whatever we are doing determines the sort of a stimulus which will set free certain responses which are there ready for expression, and it is the attitude of action which determines for us what the stimulus will be. Then, in the process of acting we are continually selecting just what elements in the field of stimulation will set the response successfully free. We have to carry out our act so that the response as it goes on is continually acting back upon the organism, selecting for us just those stimuli which will enable us to do what we started to do. (70:389-90)

Through Mead's understanding of the stimulus-response category within the larger perspective of the act, the dynamic aspects of experience, attention and selection are provided for.

The social act is not explained by building it up out of stimulus plus response; it must be taken as a dynamic whole—as something going on—no part of which can be considered or understood by itself—a complex organic process implied by each individual stimulus and response involved in it. (69:7)

If behavior is to consist of anything more than a series of jerks, the stimulus-response explanation of the Watsonist must get past the mere sequence of the reflex arc; it must become a co-ordination. This continuity is achieved by understanding the stimulus as a progressive part of an entire social act. Stimulus and response are correlative aspects of a continuing reconstruc-

tive situation. The atomism resulting from Watson's use of stimulus and response as discrete existential parts of acts is a grave oversimplification of the nature of experience. This is readily apparent in Watson's view of learning.

Learning, to Watson, is a matter of the conditioning of reflexes and needs no other explanation. Learned responses are built up by repetition out of the simple stimulus-response arc. ". . . Simple unlearned and unconditioned responses . . . are the elements out of which our organized, *learned*, responses must be formed and apparently by the process of conditioning."³ It is difficult to see where Watson gets the organization of learning out of the conditioning process. Education for him never gets beyond the level of specific habit formation, for there is no correlativity of stimulus and response within a total act, which is the basis for organization. "When we are teaching the animal or human . . . we are merely establishing a conditioned response—the stimulus remains constant."⁴ Watson very adequately states the educational aspects of his position when he says:

This is the keynote of the formation of all our habits. Some stimulus in the outside environment or in the inside environment . . . sets the individual moving. He may move in many ways, do many hundreds of things, before he blots out stimulus A or moves himself beyond its range. If, when he gets into the same situation again, he can accomplish the one or the other of these results more rapidly and with fewer movements, then we say he has *learned* or *has formed a habit*.⁵

What is significant in this statement is that the stimulus enters from the environment, that the individual is passive until the stimulus arrives, that the response to the first stimulus then lets the individual return to rest, that the speed with which the individual can accomplish this pattern is the index to his learning, and that all learning finally comes down to formation of fixed habits of reaction or patterns of routine behavior.

³ Watson, *op. cit.*, p. 26.

⁴ *Ibid.*, p. 28.

⁵ *Ibid.*, p. 200.

A fourth criticism which Mead makes of radical behaviorism concerns its inadequate view of language. Whatever place Watsonism could give to the inner experience of imagery, attitudes, and thought was provided by language. Language is explained as a conditioned reflex. Thinking is only the sub-vocal use of language. Thinking is a form of general bodily activity which uses the muscles of the throat, larynx, and chest; something that is silently performed within the skin. It is this 'within our skin' that constitutes another Watsonist's inadequacy.

In Mead's view:

A behaviorist, such as Watson, holds that all of our thinking is vocalization. In thinking we are simply starting to use certain words. That is in a sense true. However, Watson does not take into account all that is involved here, namely, that these stimuli are the essential elements in elaborate social processes and carry with them the value of those social processes. The vocal process as such has this great importance, and it is fair to assume that the vocal process, together with the intelligence and thought that go with it, is not simply a playing of particular vocal elements against each other. Such a view neglects the social context of language. (69:69)

Because radical behaviorism oversimplifies the genesis and functioning of language, it fails to find in the social implications of symbolism a behavioristic explanation for distinctively human experience. The Watsonist's failure to see the social context of communication as that out of which language proper evolves is of one piece with the failure of traditional psychology to take communication as a psychological datum.

THE APPROACH OF SOCIAL BEHAVIORISM

Mead's significant contribution grows out of his criticisms of these psychological positions available to him. He sees that the biological principle of evolution demands a view of mind which would make it a part of the continuity of the life-process. He sees that that concept implies a theory of mind as a genuine, but not a superimposed, emergent. Mead also realizes that an

adequate view of mind cannot be only biological, but must also be social, and to neglect mind's social genesis is either to become mystical or to reduce mental phenomena to the non-mental. His approach, though it adopts the general behavioristic orientation, is a broader, social behaviorism which makes provision for all of the distinctive intellectual traits of man.

In Mead's view the only way to avoid begging the question in giving a description of mind is to see mind as socially constituted. Only as we view individual mind as an emergent within prior, social conditions can we account for mind on an empirical basis. The psychologist who neglects the social origin of mind and deals with psychological phenomena as the immediate possessions of individuals has overlooked the field in which mind might be explained in terms of its manipulative conditions and as a naturalistic emergent, and has immediately taken for granted that which is to be explained. Just how do psychological phenomena, the experiences peculiar to human individuality, occur? What is their genesis, growth, and functioning? An adequate treatment of psychological phenomena should describe the self emerging out of its observable, social preconditions. Mead believes that:

. . . Other selves in a social environment logically antedate the consciousness of self which introspection analyzes. They must be admitted as there, as given, in the same sense in which psychology accepts the given reality of physical organisms as a condition of individual consciousness. (32:179)

The heart of his position is that:

. . . any psychological or philosophical treatment of human nature involves the assumption that the human individual belongs to an organized social community, and derives his human nature from his social interactions and relations with that community as a whole and with the other individual members of it. (69:229)

Mead describes his behavioristic approach to the problem of mind by saying, "Our behaviorism is a social behaviorism." (69:6) His is not an investigation into the subcutaneous conditions of mind, but a description of the cooperative behavior of human individuals.

We are not, in social psychology, building up the behavior of the social group in terms of the behavior of the separate individuals composing it; rather, we are starting out with a given social whole of complex group activity, into which we analyze (as elements) the behavior of each of the separate individuals composing it. We attempt, that is, to explain the conduct of the individual in terms of the organized conduct of the social group. . . . (69:7)

Mead's effort is not to build up the behavior of the whole out of atomistic elements, but to analyze the behavior of the individual in terms of the complex social act. He sees that one of the contributions of "configuration or *gestalt* psychology" is its pointing out that "experience, even that of the individual, must start with some whole. It must involve some whole in order that we may get the elements we are after." (69:37-8)

Although Mead's approach is behavioristic, a great deal of his work is amenable to the phraseology of the Gestalt psychologist. Some of Mead's expressions concerning the Gestalt movement are too cryptic to be enlightening. For instance, he says:

It is important to determine whether experienced characters are states of consciousness or whether they belong to the surrounding world. If they are states of consciousness, a different orientation results than if so-called "conscious states" are recognized as the characters of the world in its relation to the individual. All I am asking is that we should make use of that conception as we do use it in other connections. It opens the door to a treatment of the conscious self in terms of a behaviorism which has been regarded as inadequate at that point. It avoids, for example, the criticism made by the configuration psychologists, that psychologists have to come back to certain conscious states which people have. (69:331-2)

Apparently Mead felt that the Gestaltist tends to make the same presupposition as the traditional nineteenth century psychologist, but he does not develop the criticism enough to make it clear. The development of bio-social behaviorism in its relation to the Gestalt movement seems to be a promising avenue for further inquiry.

Similarly, Mead's references to the psycho-analytic move-

ment in psychology are not sufficiently developed to make clear to what extent, if any, he feels that it shares in the traditional inadequacy. He credits the Freudian psychology with having recognized "that we do not only our thinking but also our perceiving with minds that have already an organized structure which determines in no small degree what the world of our immediate and reflective experience shall be." (55:229) He also feels that Freud's concept of the "censor" represents "a partial recognition" (69:255n) of the control over the individual's behavior by organized community patterns of conduct. But apparently Mead thought that the work of "the Freudian group" was a "more or less fantastic psychology" (69:211), and he did not use it as an important part of existing belief against which to assert his reconstructive hypothesis.

SOME EDUCATIONAL IMPLICATIONS

Mead recognizes that a great deal of educational practice rests upon the older, dualistic psychologies.

If we turn to our system of education we find that the materials of the curriculum have been presented as percepts capable of being assimilated by the nature of their content to other contents in consciousness, and the manner has been indicated in which this material can be most favorably prepared for such assimilation. This type of psychological treatment of material and the lesson is recognized at once as Herbartian. It is an associational type of psychology. Its critics add that it is intellectualistic. In any case it is not a social psychology, for the child is not primarily considered as a self among other selves, but as an *apperceptionsmasse*. The child's relations to the other members of the group, to which he belongs, have no immediate bearing on the material nor on the learning of it. The banishment from the traditional school work of play and of any adult activities in which the child could have a part as a child, i.e., the banishment of processes in which the child can be conscious of himself in relation to others, means that the process of learning has as little social content as possible. (34:689)

Mead also points out that this conception of the nature of learning leads to a dualism between theory and practice and a separation of the school from its society.

The business of storing the mind with ideas, both materials and methods, has been assigned to the school. The task of organizing and socializing the self to which these materials and methods belong is left to the home and the industry or profession, to the playground, the street and society in general. A great deal of modern [1910] educational literature turns upon the fallacy of this division of labor. (34:689-90)

The individualistic and dualistic presupposition of psychological thinking has failed to provide education with an adequate view of the social matrix of all behavior.

The author of this study believes that the situation in educational psychology today is not wholly free from the difficulties which Mead finds in existing psychologies. Some of our educational psychologies are the expression of those psychological views which Mead finds inadequate. Education today often is based on theories of mind that are dualistic, or of the extreme behaviorist type, or various combinations of the two.

In those⁶ who hold that education is the development of rational powers, which are in the common nature of man and are best developed by the operation of pure reason as far removed as possible from the influences of time and place, the writer believes we have expressed the educational aspects of what Mead considers the uncritical carry-over from the older rationalistic psychology. Mind is that endowment of man whereby he can arrive at the truth which is everywhere the same. Education's task is to develop the rational elements of our nature so that the truth embodied in our cultural heritage can be passed on to individuals whose innate rational faculties can grasp the clear and certain knowledge of first principles.

Here we have an attempt by some contemporary educators to re-establish within our modern scientific world a view of mind of classical dualism. Education involves the unfolding of given rational powers with which social conditions have only an incidental and external relationship. It is assumed,

⁶ R. M. Hutchins, *The Higher Learning in America*, New Haven: Yale University Press, 1936. M. J. Adler, "The Crisis in Contemporary Education," *The Social Frontier*, V, 1939, 140-145.

apparently, that such a process will develop individuals who can deal intelligently and responsibly with contemporary problems. Education needs to go back to the dogmas of the pre-scientific period and study these truths apart from the disturbances of the contemporary scene. This view represents an assertion that the dogmas upon which man has been operating in the most scientifically ignorant and unproductive periods of his history are those from which we can expect the most for our future. This view is education's great anachronism.

A second educational point of view equates learning with the creation of habits along the line of the conditioned reflex of extreme behaviorism. Teaching is the establishment of conditioned responses. The more automatic the response, the better the learning. The task of education is to condition pupils so that they will respond efficiently to the presentation of stimuli. The educational consequences of this narrow interpretation of behaviorism are suggested by Mead's illustration of the trained body of troops who carry out the plans and purposes of their superior officers. The mass of men are well conditioned; their habitual patterns of action are well established without thinking. The control of the process is external. The description suggests how readily it might be applied to school situations which work upon the same psychological hypothesis. If we are going to be efficient in teaching the young, let us condition them as quickly and readily as possible. The index to the success of education will be the speed and accuracy of the response of the pupil to the stimulus of the teacher's question. The view of education as the conditioning of reflexes is basic in many educational situations today.

To what extent does this view of education satisfy the social demands of contemporary life? To look upon the education of the young as a process similar to the movements of troops in army maneuvers may satisfy the demands of a totalitarian social order, but it will hardly develop individuals capable of responsible thinking, which is the cornerstone of democracy. We must develop an educational psychology which not only does justice to the advancing knowledge of science but recognizes

the democratic way of life as the most satisfactory and fruitful condition of man's existence. The educational implications of extreme behaviorism are more compatible with the demands of an authoritarian society and political organization than they are with the demands of a democracy.

A third type of educational operation is to combine in an eclectic fashion the two psychologies which have been described. The conditioning of reflexes is used to take care of the rote learning of the basic skills. After the child is raised to the point where he has mastered these skills, then a mentalistic psychology is brought in to take care of the higher thought processes. Thus one part of the school day's curriculum is set up for drill and mastery of the habitual mechanisms of the three R's and another part is given over to the expression of the higher reason and the development of the creative side of individuality. This theory of the curriculum assumes once again that man is part mechanism and part soul, to be developed by a combination of these two aspects according to the principles involved in the two natures.

This situation is as intolerable as either of the former educational positions. The combination of two inadequacies hardly makes an acceptable conceptual system or educational program. We can not correctly apply one educational psychology in the morning and another in the afternoon. The higher thought processes should not be considered as resting on an animal nature as one object rests on another. Man is not a group of discrete compartments; is not part mind and part body, part mechanism and part purpose. What education needs is a view of man and conduct as continuous with and emergent from prior non-mental conditions. It is this contribution that Mead has to make to educational psychology.

SUMMARY

Mead, in a survey of the psychologies of his period, finds that nineteenth century associationism, parallelism, and functionalism contain a common dualistic presupposition which affords no significant description of mind because it really presupposes

the very phenomenon it seeks to explain. He also finds that the social psychologists from Wundt through Cooley make this same underlying presupposition. On the other hand, extreme behaviorism, which Mead interprets as an effort to get away from the historic dualism with its notion of a pre-existing mind, does not afford an adequate account of human conduct for it reduces the mental to the non-mental and thus, in effect, denies man's distinctive characteristics. The radical behaviorist has defined his problem and concepts too narrowly and has thus been deprived of the data of communication as the social condition of the emergence of consciousness.

An adequate solution of the problem will contain a thoroughly empirical account of mind which may be confirmed according to the method of research science and which will be in accord with the implications of modern scientific achievement. A behavioristic description of the social context of communication will explain how meaning, consciousness, and mind emerge from the non-mental group behavior of animal forms. Such a statement will provide an educational orientation achieved by our best intellectual method and supported by the knowledge which that method affords.

CHAPTER III

The Genesis of Mind in Communication

The Biological Basis of Behavior.—The Attitude Becomes the Gesture.—The Significant Symbol Emerges from the Gesture.—Some Educational Implications.—Summary.

As has been shown in the preceding chapter, Mead felt that an adequate view of the emergence of mind from prior, non-mental behavior “. . . is provided only by the behavioristic analysis of communication, and by the statement of the nature of mind in terms of communication to which that analysis leads.” (69:51) Mead’s social behaviorism is an attempt to avoid the difficulties and lacks which he considers inherent in the introspective psychologies and by a more adequate analysis of the complex process of language communication to provide for an interpretation of thinking and mind from the standpoint of behavior. “In dealing with reflection we now seek to lift it out of the mentalistic terminology and place it in behavior.” (71:659)

THE BIOLOGICAL BASIS OF BEHAVIOR

Mead’s behaviorism differs from Watson’s in that Mead distinguishes between the behavior of the “biologic individual” and the conduct of the “socially self-conscious individual,” between the acts of non-reflective animals and those of man. However, he does not consider that this distinction involves a separation of the two, but rather that the reflective is a development within the impulsive, a development in which the impulsive acquires new traits under certain conditions.

It would be a mistake to assume that a man is a biologic individual plus a reason, if we mean by this definition that he leads two separable lives, one of impulse or instinct, and another of

reason—especially if we assume that the control exercised by reason proceeds by means of ideas considered as mental contents which do not arise within the impulsive life and form a real part thereof. On the contrary, the whole drift of modern psychology has been toward an undertaking to bring will and reason within the impulsive life. The undertaking may not have been fully successful, but it has been impossible to avoid the attempt to bring reason within the scope of evolution; and if this attempt is successful, rational conduct must grow out of impulsive conduct. My own attempt will be to show that it is in the social behavior of the human animal that this evolution takes place. (69:347-8)

Mead's effort is to describe the behavior of the biologic individual in such a way that we can see how reflective conduct arises out of it. His hypothesis is that it is through communication that the mental emerges out of the organic life of man. Thus two basic factors are involved in Mead's description of mind: the impulsive behavior of human organisms and communication.

The central principle in all organic behavior is, in Mead's view, that of the adjustment of a life-process to an environing field. Mead, following the evolutionary hypothesis, posits a life-process developing varying forms under different environing conditions and defines the behavior of the biologic individual as "the adjustment of this life-process to a particular environment." (70:253) To him the living creature is an emergent event which struggles to maintain itself through its sensitivities and responses to its surroundings.

According to Mead's hypothesis, all animal behavior results from impulses.

Human behavior, or conduct, like the behavior of lower animal forms, springs from impulses. An impulse is a congenital tendency to react in a specific manner to a certain sort of stimulus, under certain organic conditions. (69:337)

Mead accepted the psychology of his period which used the "instinct" terminology, but he holds that the biologic individual is not a mere bundle of separate impulses but rather an organization within which these congenital tendencies affect each other and bring about complex acts. Organic behavior is

not the expression of simple instinctive elements; it springs from modifications of inherited behavior patterns that are interrelated. In so far as the human individual acts immediately and directly with his surroundings, he is behaving impulsively and is making adjustments in accordance with the sensitivities provided by the organized impulses.

Furthermore, in Mead's view, impulses are not merely biologic, but largely "social in character or have social implications." (69:228) Mead is using the term "social" in a broader sense than its use as a synonym for "cultural"; he does not limit it to the human. "Social," in his present meaning, refers to any relations which an organism has with other organisms of its own or other species; it is equivalent to "interaction." As Mead sees it, then, ". . . the fact that is of moment is that the psychologist who recognizes . . . impulses will find among them a preponderating number that are social." (31:403) According to his analysis the socio-physiological impulses:

. . . are the essential physiological materials from which human nature is socially formed; so that human nature is something social through and through, and always presupposes the truly social individual. Indeed, any psychological or philosophical treatment of human nature involves the assumption that the human individual belongs to an organized social community, and derives his human nature from his social interactions and relations with that community as a whole and with the other individual members of it. (69:229)

As we have seen in connection with his criticism of Watson's stimulus-response conception, Mead believes that:

. . . The organism is not simply a something receiving impressions and then answering to them. It is not a sensitive protoplasm that is simply receiving these stimuli from without and then responding to them. The organism is doing something. It is primarily seeking for certain stimuli. . . . Whatever we are doing determines the sort of a stimulus which will set free certain responses which are there ready for expression, and it is the attitude of action which determines for us what the stimulus will be. (70:389-90)

Mead is pointing out that the organism is not passive and that its behavior is not merely suffering the action of events, but it

also has a dynamic quality. Even the behavior of the less complex, non-human animals shows that they are not indifferent to the various aspects of their environment. The organism does not wait inertly for some external stimulus to excite it into motion but is active by its very nature.

Mead's account of biologic behavior recognizes that the organism has needs that make demands upon the environment. In the fulfillment of these needs all animal behavior involves selective attention.

It is of importance to emphasize the sensitivity to the appropriate stimuli which call out the impulses. This sensitivity is otherwise referred to as the "selective character of attention," and attention on its active motor side connotes hardly anything beyond this relationship of a preformed tendency to act to the stimulus which sets the impulse free. (69:337)

The organism accepts certain events in its field as stimuli and rejects or overlooks certain others as irrelevant to its demands. The animal which is defending itself from another does not accept the occurrence of a food event as a stimulus to its immediate needs, but it does accept the attitude of its foe as a stimulus. The organism selects those aspects of its field which pertain to the acts in which the organism is engaged.

According to Mead's behaviorism, the susceptibility or receptiveness of the organism to certain aspects of its field determines the environment of the organism.

In terms of its sensitivity the form selects an environment, not selecting exactly in the sense in which a person selects a city or a country or a particular climate in which to live, but selects in the sense that it finds those characteristics to which it can respond, and uses the resulting experiences to gain certain organic results that are essential to its continued life-process. (69:215)

In Mead's view, then, there is a mutual interdependence of form and environment. The form is determined by the field in so far as certain conditions have to be met for the organism's continued survival. The field is determined by the form in so far as certain aspects of the field, for instance grass as a food object, do not exist without the selection by an organism of

those objects, in this case an animal with a digestive tract capable of assimilating grass. In other words, Mead's conception of the evolution of biologic behavior is not that of an environment shaping an organism as a sculptor handles clay, but in his view evolution also involves the activity of the form of the life-process in selecting certain characteristics in its field to react to.

Mead carries this mutually determinative concept of the organism-environment relation into his treatment of perception and the emergence of meanings. According to his view:

The eye and related processes endow objects with color in exactly the same sense that an ox endows grass with the character of food, that is, not in the sense of projecting sensations into objects, but rather of putting itself into a relation with the object which makes the appearance and existence of the color possible, as a quality of the object. Colors inhere in objects only by virtue of their relations to given percipient organisms. (69:130)

The organism determines the environment in that there would be no colorful objects to respond to unless the organism was sensitive to the existence of color-producing qualities in the objects. Similarly, as we shall see when dealing with the consciousness of meanings, Mead holds that meanings emerge in social experience when an organism can respond in terms of meanings, just as colors and food objects emerge when organisms can deal with them.

It is Mead's hypothesis that in the behavior of the biologic individual equipped with the apparatus of sight, the animal selects what is at a distance from it as a part of its field. This attention to distant qualities involves a temporal sequence in the act, for behavior is adjusted with regard to what is not yet at hand. The form

. . . exists at a distance from objects which are favorable or unfavorable to it, and it measures the distance in terms of its own movements toward or away from the objects. That which affects it in its distant experience is a promise of what will happen after contact takes place. It may be favorable contact with food, or contact with the jaws of its enemies. (69:246)

The animal can behave in regard to things that are at a distance, and the field in which the attention of the animal organism functions is a kind of environment different from that of simpler life-forms. "The form which has no distant experience, such as an amoeba, or which has such distant experience involved only functionally, has not the sort of environment that other forms have." (69:247) In other words, the field of an organism with distance receptors is a field in which a more complicated kind of selective attention can operate than the environment of the simpler life-forms.

Mead believes that in all perception there is the type of experience in which acts are stimulated by distant things and end in the attaining or avoiding of those things in contact experiences.

The fundamentals of perception . . . are the spatiotemporal distances of objects lying outside the manipulatory area and the readiness in the organism to act toward them as they will be if they come within the manipulatory area. (71:104)

Mead does not believe that a hard-and-fast line can be drawn between the perceptual act of the animal organism and that involving reflection. (20:390) However, in perception at the distinctively human level a much more complicated act is involved because of the refined organ of manipulation, the human hand, and the resulting differentiation of the act into a manipulative and a consummatory aspect. In the animal organism contact is to a large extent the close of the act, whereas in the human form contact leads to a later state in which things are enjoyed and appreciated. Furthermore, in Mead's analysis the more extended temporal spread of the human act enables man to extend and refine the perceptual aspect of behavior while processes of analysis in terms of symbols are carried out.

Mead sees his theory of perception as an alternative to an older view which draws a sharp dividing line between the vision of the animal form and the perception of the human being. To him, the "causal theory of perception" (70:352) assumes that the structure of the object perceived is transmitted and im-

pressed upon the individual's mind. Perception is an effect created on the mind, a content within the organism which is a photographic copy of an external event. "Both rationalism and empiricism assumed that there are certain structures in the object which the mind gets hold of. . . ." (*Ibid.*) Mead's effort, in contrast with this view, is to see perception in terms of the act instead of in terms of mental states and to define it in terms of a relationship "between a highly developed physiological organism and an object, or an environment in which selection emphasizes certain elements." (71:8) From the point of view of education, Mead's view of perception as something more than just opening the eyes and responding to what falls on the retina is of considerable value. When perception is understood as an act that involves selective attention to some aspect of a field rather than something that comes into an individual's nervous system and leaves an impression, we have a lead as to the kind of experience with which education deals.

Mead's interpretation of perception in terms of the act enables him to place the colors and tastes and secondary qualities of things in the things that are involved in the act rather than within the consciousness of the individual, after the fashion of Locke's distinction of primary and secondary qualities. Mead points out that in those views which use the effect theory of perception "there has been postulated a consciousness which is the receptacle of the immediate perception" (71:17) and in that consciousness are the perceived qualities of things, while "the real object is placed outside experience, revealed only by thought." (*Ibid.*) In Mead's conception "a great deal has been placed in consciousness that must be returned to the so-called objective world." (69:4) His view enables him to place all the qualities of things in the things that participate in the act and not exclusively in the subjective experience of the individual.

Mead indicates that the determination of the environment by the biologic individual "is certainly not a cognitive relationship. It is selective, constitutive, causal" (71:337), but not one involving consciousness. When perception takes place di-

rectly, when behavior is controlled "with reference to spatio-temporally distant stimulation by the promise of the contact experience" (71:105), there is not the operation of reflective intelligence. As we shall see in greater detail later, there is a hesitancy, a more extended inhibition of conduct involved at the distinctively human level which is not involved in the selective attention of animal behavior. What Mead is pointing out in this aspect of his behaviorism is that "Sense perception is an outgrowth of the behavior by which organisms relate themselves to what is spatiotemporally away from them" (71:141), and that behavior of the biologic individual involves selecting what is at a distance and acting toward it in terms of how it will behave in contact experience.

Mead deals with the actively selective nature of organic behavior under the concept of the attitude. It is his hypothesis that when an organism has a tendency to act in a certain way, we can say that it takes an attitude. "By 'attitude' I refer to the adjustment of the organism involved in an impulse ready for expression." (69:362) An event, or occurrence, or thing becomes a stimulus when an organism adjusts to it, in other words, when an impulsive individual takes an attitude in relation to the event. To Mead, an attitude is not a state of mind expressing itself in conduct as is the traditional introspective-individualistic view. It is a part of an act, a condition prior to anything that can be called mental, and in terms of the attitude behavior can be analyzed without presupposing mental states.

In Mead's view the attitude is that beginning part of an act that serves to pattern or pervade the act as a whole.

There is an organization of the various parts of the nervous system that are going to be responsible for acts, an organization which represents not only that which is immediately taking place, but also the later stages that are to take place. If one approaches a distant object he approaches it with reference to what he is going to do when he arrives there. If one is approaching a hammer he is muscularly all ready to seize the handle of the hammer. The later stages of the act are present in the early stages—not simply in the sense that they are all ready to go off, but in the sense that they serve to control the process itself. They determine how we are

going to approach the object, and the steps in our early manipulation of it. We can recognize, then, that the innervation of certain groups of cells in the central nervous system can already initiate in advance the later stages of the act. The act as a whole can be there determining the process. (69:11)

This behavioristic conception of attitudes recognizes that behavior is serial and coordinated and that throughout a series of acts a demanded outcome is operative.

We can see that Mead's concept of the attitude does not involve cognition for he finds in the behavior of plants a control over early parts of their adjustments by a demanded end.

In the twisting of a plant toward the light, the later effect of the light reached by the twisting controls the process. It will be in the direction which provides the maximum of illumination. Within the temporal spread of a present the later events control a process which continues throughout the whole. . . . A living process is a series of events that are moving toward a terminus and is controlled in that movement by the later events in the duration. (71:340)

The tendency of the plant to maintain itself causes it to select out of its field the presence of sunlight as a stimulus which controls its life-process. The behavior involving this selection is a process and moves toward the patterned end of maximum sunlight. While Mead does not apply the term "attitude" to the adjustment of the plant, he seems to observe the rudiments of behavior which, when mediated by a central nervous system, he calls an attitude.

The physiological basis for this "selective character of attention" in the animal organism Mead finds in the nature of the vertebrate central nervous system.

The centers and paths of the cortex represent an indefinite number of possible actions; particularly they represent acts which, being in competition with each other, inhibit each other, and present the problem of organization and adjustment so that overt conduct may proceed. In the currents and cross-currents in the gray matter and its association fibers, there exist the tendencies to an indefinite number of responses. Answering to these adjustments are the objects organized into a field of action, not only

spatially but temporally; for the tendency to grasp the distant object, while already excited, is so linked with the processes of approach that it does not get its overt expression till the intervening stretch is passed. In this vertebrate apparatus of conduct, then, the already excited predispositions to thousands of acts, that far transcend the outward accomplishments, furnish the inner attitudes implicating objects that are not immediate objectives of the individual's act. (67:182-3)

The animal organism that has a central nervous system and can deal with things at a distance has the ability to behave in more varied ways than the more elementary organisms. It has alternative ways of responding to selected stimulating events. The variety of responses, made possible largely by the neurological complexity of the forms, are observable in the attitudes which the organism takes. Presumably, an instance would be the cat that hunts the mouse, plays with it, and uses it as food. That these motor attitudes may be conflicting tendencies is seen in the dog that alternately advances toward a stranger in a friendly fashion and retreats in fear.

In Mead's view of the attitude the response is, in a sense, present in the stimulus, for it involves a readiness or "set" to respond in any one of a number of ways with reference to an event.

An attitude of any sort represents the beginning, or potential initiation, of some composite act or other, a social act in which, along with other individuals, the individual taking the given attitude is involved or implicated. . . . The study of the nature of the central nervous system shows that in the form of physiological attitudes (expressed in specific physiological sets) different possible completions to the given act are there in advance of its actual completion, and that through them the earlier parts of the given act are affected or influenced . . . by its later phases. . . . (69:100)

Mead uses the example of one's approach to a horse with the feel, or set, or readiness of riding, feeding, buying, or selling the horse. What one is going to do determines how the event "horse" is accepted as a stimulus. The attitude is Mead's concept for this what-one-is-going-to-do characteristic of verte-

brate behavior, and in it Mead finds the physiological basis for behavior that is controlled by an idea or purpose. The attitude provides the teleological character of the act.

Mead's concept of the attitude has important educational implications, with which we shall shortly be concerned, for it describes the biological context within which education functions. The intimate relationship between readiness, or set, or non-conscious action tendency and the human learning process is apparent in all educative acts. Teachers have realized that the way in which a problem is approached is vitally important to teaching. What Mead is doing is connecting this basic concept of the non-reflective attitude with the later reflective act in which attitudes in their more involved relationships become the ideas, purposes, and plans of consciously controlled conduct.

Thus, in addition to treating attitudes in terms of the central nervous system or in terms of motor attitudes, Mead also refers to them as "terminal attitudes," as aspects of the act. To him, "terminal attitudes" are "beginnings of the contact response that will be made to the object when the object is reached." (71:161) When on the non-reflective level two of these attitudes conflict or are mutually exclusive ways of acting in regard to an event, the organism proceeds by what we call trial and error. Mead distinguishes this kind of animal behavior from the act of the human individual who is capable of inhibiting his act and who tries out the varying approaches in imagination to see what promises and fulfillments are to be expected.

In Mead's view, the acts of the biologic individual are relatively immediate.

The biologic individual lives in an undifferentiated now; the social reflective individual takes this up into a flow of experience within which stands a fixed past and a more or less uncertain future. (69:351)

The behavior of animals and a great deal of human behavior is reacting directly with surrounding events. The biologic individual does not find any other objects than those of his immediate vision, hearing, and contact. He acts impulsively, with-

out deliberation, on the basis of what his impulses sensitize him to in a given environment. Mead recognizes that "in all adjustment of individuals to each other's action there must be some inhibition" (69:362), but the acts of the biologic individual do not involve analysis of elements and their recombination into new objects with which he can make adjustments. Mead says that the term "the biologic individual" "refers to the individual in an attitude and at a moment in which the impulses sustain an unfractured relation with the objects around him." (69:352)

The behavior of the biologic individual, in Mead's analysis, is made up of congenital and habitual ways of reacting, and as such the organism has no means for the analysis of its field when new situations are met and for the reconstruction of action tendencies in the light of that analysis.

. . . The instinctive individual cannot break up his objects and reconstruct his conduct through the adjustment to a new field of stimulation because its organized reactions cannot be separated to come together again in new combinations. (69:368)

In impulsive behavior "a check at any point frustrates the whole undertaking." (69:362) In "the act made perfect in habit" (33:402) there cannot be found the means whereby behavior can be dismembered and its various aspects represented so that a consciousness of meaning can arise.

In Mead's understanding habitual action tendencies are not those which go to make up mental conduct, for they are acts which proceed smoothly and without hesitation to their anticipated close. There is no demand for a reconstruction of experience and a consciousness of self which characterizes reflection. "As a mere organization of habit the self is not self-conscious." (41:378) In habitual behavior the individual adjusts without reflection and an awareness of himself as an agent. The act made perfect in habit presents no demands in which an attitude must be held in abeyance. It does not present a situation which must be sorted out to see what parts of the field are appropriate to the needs of the organism and what new pattern of behavior will be the most promising for a new equilibrium.

It is behavior that involves the analysis and reconstruction of attitudes that is reflective behavior, and that arises presumably only in the human form when habitual and impulsive action tendencies are thwarted.

THE ATTITUDE BECOMES THE GESTURE

We have been considering how Mead uses his concept of the attitude to describe the behavior of the biologic individual. We shall now turn to his description of behavior when the attitudes of several organisms come into relationship with each other.

In Mead's terminology this is the field of the gesture. "The term gesture I am using to refer to that part of the act or attitude of one individual engaged in a social act which serves as the stimulus to another individual to carry out his part of the whole act." (67:187) In the concept of the gesture, Mead is describing an attitude which is communicated to another organism. He believes that if he can show a means whereby attitudes become stimuli to other organisms in the light of which they make their adjustments, he will have stated the conditions of animal communication as it exists prior to the emergence of language.

Any attitude which is a stimulus to another individual is a gesture, according to Mead's belief.

Most social stimulation is found in the beginnings or early stages of social acts which serve as stimuli to other forms whom these acts would affect. This is the field of gestures, which reveal the motor attitudes of a form in its relation to others. . . . (39:402)

Although Mead does not seem to distinguish carefully and consistently between attitude and gesture, he seems to indicate that an attitude is an adjustment which does not necessarily involve another form, whereas a gesture is an attitude which is selected by another organism as a part of its field that demands adjustment. Thus the adjustment of an ox toward grass as a food is described as an attitude. The animal cry which frightens the prey is a gesture because it involves a selection and a

response by the animal attacked. Neither attitude nor gesture at this level of the biologic individual implies any intent or "consciousness of" in the organism making the adjustment.

Mead, in his concept of the gesture, is using a Wundtian term.

Wundt isolated a very valuable conception of the gesture as that which becomes later a symbol, but which is to be found in its earlier stages as a part of a social act. It is that part of the social act which serves as a stimulus to other forms involved in the same social act. (69:42)

To Mead, the attitudes of organisms to which adjustments are made by other organisms are stimuli of peculiar importance because they make possible much more involved social acts than those in which non-gestural organisms are involved.

The gesture, according to Mead's belief, is an attitude that makes possible a mutual adjustment of biologic individuals within a field in which the organisms are attentive to the attitudes of other organisms.

Within any given social act, an adjustment is affected, by means of gestures, of the actions of one organism involved to the actions of another; the gestures are movements of the first organism which act as specific stimuli calling forth the (socially) appropriate responses of the second organism. (69:14n)

As we have seen, Mead considers that the impulses from which organic action springs involve other organisms. The active and dynamic character of organic behavior means that the organism pays attention to the acts of other organisms as stimuli to its own act. When animal "A" makes adjustment "a" to some appropriate stimulus, it is contributing to the field of organism "B" that is making adjustment "b" to its field. Attitude "b," in turn, becomes part of the stimulating field of organism "A," or some other. Thus there is a "field of palaver" (33:398), an elementary non-conscious conversation going on at the entirely non-human level. What makes possible this cooperation of attitudes is, of course, the more highly involved sensitivity of the forms, their distance receptors and more complex nervous systems. Because of this physiological development the atti-

tude, or readiness, or set of an organism at a distance becomes a stimulus to a change of attitude in another.

Mead uses the communication of attitudes in a dog fight as an example of the conversation of gestures.

The attitude assumed in response to the attitude of another becomes a stimulus to him to change his attitude, thus leading to that conversation of attitudes which is so vividly illustrated in the early stages of a dog fight. (39:402)

Attitude "a" on the part of dog "A" is a focus of attention to dog "B" which responds with attitude "b." Attitude "b," in turn, is observed by dog "A" and calls out a change in that form to attitude "aa" which is a stimulus to "B" with the resulting attitude "bb." The continuation of this process shows the type of mutual adjustment made possible by gestural behavior.

Mead points out that the dog does not create the gesture to call out an appropriate response in the other dog. The attitude of the animal means something to the other form, but "We cannot say the animal means it in the sense that he has a reflective determination to attack." (69:45) Mead is careful to avoid reading the characteristics of human conduct back into the behavior of prior, non-mental forms. "The dogs are not talking to each other; there are no ideas in the minds of the dogs; nor do we assume that the dog is trying to convey an idea to the other dog." (69:48) Gestures, at the non-linguistic level, do not carry the connotation of conscious meaning or intent but serve as cues for the appropriate responses of the others.

Mead also recognizes that gestural communication takes place immediately, without any prolonged interruption of the act. The organism adjusts itself "instinctively" to the attitude of the other (69:43); it does not stop and figure out which response it will give.

It is the entrance of the alternative possibilities of future response into the determination of present conduct in any given environmental situation, and their operation, through the mechanism

of the central nervous system, as part of the factors or conditions determining present behavior, which decisively contrasts intelligent conduct or behavior with reflex, instinctive, and habitual conduct or behavior—delayed reaction with immediate reaction. (69:98)

The gesture calls out immediate reactions of the impulsive kind and connects and adjusts one organism's act with that of another without any pronounced delay.

Mead further indicates that "This field of gesture does not simply relate the individual to other individuals as physical objects, but puts him *en rapport* with their actions, which are as yet only indicated. . . ." (39:402) The act of one organism is in intimate relationship with that of the other which is indicated in his gesture. A "reference to a future" determines the present experiences, not in the sense that there are ideas about what is going to happen but in the sense that present needs will be satisfied in later experience and "this later experience does determine what the present experience shall be." (69:118-9) What the gesture provides for is the serial nature of cooperative behavior in which the attitude of one organism is preparatory to the act of another and in which the attitude resulting from the stimulus of another's gesture carries on a social process.

Mead distinguishes between reflective intelligence and the intelligence of the lower organic levels, and in general, reserves the term "mind" for behavior at the distinctively human level.

. . . Intelligence is, then, a function of the relation of the form and its environment. The conduct that we study is always the action of the form in its commerce with the environment. Such intelligence we may find in plants or animals when the form in its reaction to the environment sets free its impulse through the stimuli that come from the environment. (69:328)

Mead does not deny the kind of intelligence which characterizes the biological organism; on the contrary, he is interested in describing this kind of intelligence as completely as possible without ironing out the differences between it and conscious or

reflective intelligence, and without transferring the traits of reflection to the non-conscious level.

. . . What I suggested as characteristic of the mind is the reflective intelligence of the human animal which can be distinguished from the intelligence of lower forms. If we should try to regard reason as a specific faculty which deals with that which is universal we should find responses in lower forms which are universal. We can also point out that their conduct is purposive, and that types of conduct which do not lead up to certain ends are eliminated. This would seem to answer to what we term "mind" when we talk about the animal mind, but what we refer to as reflective intelligence we generally recognize as belonging only to the human organism. The non-human animal acts with reference to a future in the sense that it has impulses which are seeking expression that can only be satisfied in later experience, and however this is to be explained, this later experience does determine what the present experience shall be. . . .

When, on the other hand, we speak of reflective conduct we very definitely refer to the presence of the future in terms of ideas. The intelligent man as distinguished from the intelligent animal presents to himself what is going to happen. (69:118-9)

In seeing the emergence of reflective intelligence in the language process Mead indicates that there is a prior form of behavior which is purposive and which is controlled with reference to future ends. As we have already quoted in part:

The traditional supposition has been that the purposive element in behavior must ultimately be an idea, a conscious motive, and hence must imply or depend upon the presence of a mind. But the study of the nature of the central nervous system shows that in the form of physiological attitudes (expressed in specific physiological sets) different possible completions to the given act are there in advance of its actual completion, and that through them the earlier parts of the given act are affected or influenced (in present conduct) by its later phases; so that the purposive element in behavior has a physiological seat, a behavioristic basis, and is not fundamentally nor necessarily conscious or psychical. (69:100)

Intelligence as it exists prior to the symbolism of language involves purpose, interpreted in terms of behavior.

Mead even goes farther and finds that "In some degree the

animal takes the role of the other . . ." (69:362), which, as we shall shortly see, is the means whereby the human individual becomes self-conscious. But in Mead's view animal behavior does not involve "the type of inhibition out of which reflection springs . . . nor does it involve such variety of attitudes as is essential to analysis and representation." (69:362) The essential trait of human behavior is that the act can be inhibited without frustration, the elements of the field isolated, indicated by symbols, and recombined so that procedures can be considered in advance of their execution.

Mead sometimes seems to find in the behavior of non-human animals an intelligence which has all the qualities of reflective intelligence but to a lesser degree. When he says that animals in some degree take the role of the other, he seems to be finding at the non-human level the type of behavior which, when it becomes an essential part in the experience of the individual, marks the emergence of the conscious self (69:195). The implication that the behavior of the non-human animal and that of man are only quantitatively different characterizes the behaviorism which Mead has criticized as oversimplified. He does not seem to be totally free from this Watsonian difficulty.

Similarly, Mead sometimes seems so anxious to show the continuity between the behavior of the non-human animal and that of man that he does some violence to both. For instance, he seems to find in the behavior of organisms the qualitatively same behavior as that of the research scientist.

If we look upon the conduct of the animal form as a continual meeting and solving of problems, we can find in this intelligence, even in its lowest expression, an instance of what we call "scientific method" when this has been developed into the technique of the most elaborate science. The animal is doing the same thing the scientist is doing. It is facing a problem, selecting some element in the situation which may enable it to carry its act through to completion. There is inhibition there. It tends to go in one direction, then another direction; it tends to seek this thing and avoid that. These different tendencies are in conflict; and until they can be reconstructed, the action cannot go on. The only test the animal can bring to such a reconstruction of its habits is the ongoing of its

activity. This is the experimental test; can it continue in action? And that is exactly the situation found also in science. (70:346)

To find the reflection that characterizes scientific research in animal conduct and to imply that animals solve problems just as the scientist does is clearly not consistent with Mead's general endeavor. It would seem that he could have been more consistent by indicating that animal behavior contains rudiments which become qualitatively modified, through such distinctively human characteristics as universals, significant symbols, and ideation. The analysis also appears to be unfortunate in suggesting that animals test their solutions to problems in the same way that humans do. These inconsistencies, however, do not seem to invalidate the over-all explanation which Mead's position offers.

In Mead's view the ability which "absolutely distinguishes the intelligence of such a reflective being as man from that of the lower animals, however intelligent they may be," is the ability of the human individual to isolate "those characters which lead up to the sort of response which we give to an object." (69:92-3) Mead uses as an example the distinction between the intelligence of a bloodhound and that of a detective.

Pointing out the characters which lead to the response is precisely that which distinguishes a detective office that sends out a man, from a bloodhound which runs down a man. Here are two types of intelligence, each one specialized; the detective could not do what the bloodhound does and the bloodhound could not do what the detective does. Now, the intelligence of the detective over against the intelligence of the bloodhound lies in this capacity to indicate what the particular characters are which will call out his response of taking the man. (69:93)

Mead indicates that "to think about a thing is to point it out before acting" (69:93n) and that the distinguishing thing about human conduct is its "power of analysis of the field of stimulation" (69:94) that enables man to select, hold on to, and recombine the elements of a stimulating field so that an act can be built before its overt completion.

In Mead's opinion, this ability to delay reaction is appar-

ently made possible by the complexity of the human nervous system.

. . . The central nervous system, in short, enables the individual to exercise conscious control over his behavior. It is the possibility of delayed response which principally differentiates reflective conduct from non-reflective conduct in which the response is always immediate. The higher centers of the central nervous system are involved in the former type of behavior by making possible the interposition, between stimulus and response in the simple stimulus-response arc, of a process of selecting one or another of a whole set of possible responses and combinations of responses to the given stimulus.

Mental processes take place in this field of attitudes as expressed by the central nervous system; and this field is hence the field of ideas: the field of the control of present behavior in terms of its future consequences, or in terms of future behavior. . . . (69: 117-8)

Although Mead considers the function of the central nervous system to be very important in the development of reflection, he emphasizes the essential social nature of mental behavior and maintains that the social process is "irreducible, and in particular cannot be adequately analyzed simply into a number of discrete nerve elements." (69:118n) To him, "The act, then, and not the tract, is the fundamental datum" for all behavioristic psychology (69:8), and the act is socially conditioned.

According to Mead's analysis, in gestural communication a step has been taken toward a social act in which language communication can arise. The conversation of gestures is the intermediate behavior that enables language to emerge out of the impulsive. Language does not come into existence fully developed by a prior, planning intention. A primitive kind of communication is evidenced in the attitudes of organisms which are taken as stimuli by other forms. But the gestural attitude of the non-human animal does not make possible any means whereby the attitude of the other animal can be observed and taken over into the experience of the gesturer so that the two organisms have a common meaning. As we shall

see in the next pages, Mead considers that the vocal gesture has a unique value in enabling the individual giving it to tend to respond in the same way as the individual who receives the gesture. And the next step in the emergence of the reflective individual from the biologic individual is, in his opinion, the appearance of the language gesture which enables the speaker to take the attitude of the person who replies and so have a common meaning with reference to the object represented by the symbol. The awareness of this identity of meaning is the consciousness of meaning and distinguishes the self-conscious individual.

THE SIGNIFICANT SYMBOL EMERGES FROM THE GESTURE

Mead emphasizes the functional nature of the gesture as an attitude that serves as a sign to another individual. The gesture is representational in that it indicates that some later part of the act is coming into the situation. There is a temporal spread in the gestural act, but the sequence of the act is not of the sort that provides a common agreement or identity of significance among the individuals involved as to what the later parts of the act will be. "The conversation of gestures does not carry with it a symbol which has a universal significance to all the different individuals." (69:55) A non-language gesture calls out an appropriate response in the other individual, but there is no mechanism whereby the gesture can call out the same response in the two individuals. If different responses are made to the stimulus of the gesture, the stimulus means two different things.

It is Mead's belief that when an individual giving a gesture is able to perceive the influence of the gesture upon the other and can take over this attitude of the other into his own response, self-consciousness or reflective intelligence arises.

When, in any given social act or situation, one individual indicates by a gesture to another individual what this other individual is to do, the first individual is conscious of the meaning of his own gesture—or the meaning of his gesture appears in his own experience—in so far as he takes the attitude of the second individual

toward that gesture, and tends to respond to it implicitly in the same way that the second individual responds to it explicitly. Gestures become significant symbols when they implicitly arouse in an individual making them the same responses which they explicitly arouse, or are supposed to arouse, in other individuals, the individuals to whom they are addressed; and in all conversations of gestures within the social process, whether external (between different individuals) or internal (between a given individual and himself), the individual's consciousness of the content and flow of meaning involved depends on his thus taking the attitude of the other toward his own gestures. (69:47)

The gesture becomes a significant symbol when it indicates to the gesturer what the other individual is responding to and when the gesturer is able to assume the same attitude which the other individual takes to the gesture.

In Mead's opinion the gesture which has a peculiar importance in leading from animal behavior to the conscious behavior of the human form is the vocal gesture. The importance of the vocal gesture lies in the fact that the animal uttering the cry can hear it just as the other animal hears it, and ". . . he will have aroused in himself at least a tendency to respond in the same way as the other animal responds." (69:63) In the conversation of animal cries, which is not yet language that stands for meanings, there is the means whereby language can arise because the animal cry can be heard by the gesturer just as it is heard by the other. What is distinctive about human communication and is not found in the communication of animal cries is that the individuals, if they know what they are talking about, attach the same significance to the speech gesture.

Mead uses the concept of the vocal gesture to bridge the transition from the gesture to the significant symbol. He finds its value in that it allows the individual who gives it to hear the gesture just as the others hear it, and hence the gesturer can tend to reply as the other does. In humans the vocal apparatus is well developed and the hand is used for the manipulation which the non-human animal accomplishes with its mouth. Human speech is thus unencumbered by other functions and

can attain an intricacy beyond that of other forms. Presumably, after the pattern of taking the attitude of the other is established through speech, the act of role-taking can proceed without the gesture being oral. Mead's general position seems to be that "It is only the vocal gesture that is fitted for . . . [conscious] communication . . ." (69:67) and that any other significant language, such as that of the deaf or of script, has developed out of the vocal gesture. However, at other times he says, ". . . in order that thought may exist there must be symbols, vocal gestures generally . . ." (69:73), and, "Whether it [the symbol] can develop without the vocal gesture I cannot tell." (69:191) Mead seems to recognize that the extent to which the vocal gesture is essential to the significant symbol is questionable, and that empirical evidence is not available to confirm this phase of his hypothesis. The basic point which he makes very clear is that language communication or the functioning of the significant symbol is the behavioristic explanation of what we refer to as mind or self-consciousness and that this behavior emerges out of gestural cooperative acts.

In Mead's belief, the gesture which makes possible human or conscious behavior is the language gesture, for it is not simply a stimulus to another individual but an identical stimulus to the gesturer. In linguistic speech one accepts the same stimulus which the other receives and is consequently able to respond in an identical way. We have seen that in the conversation of gestures in the dog fight the gesture of one dog is a stimulus to another but not to the first dog. The second animal, in turn, replies with his appropriate response which is a stimulus to the first dog but not the same stimulus to the animal that gives the gesture.

We say the animal does not think. He does not put himself in a position for which he is responsible; he does not put himself in the place of the other person and say, in effect, "He will act in such a way and I will act in this way." If the individual can act in this way, and the attitude which he calls out in himself can become a stimulus to him for another act, we have meaningful conduct. Where the response of the other person is called out and becomes

a stimulus to control his action, then he has the meaning of the other person's act in his own experience. (69:73)

It is through language communication that the individual takes the attitude of the other individual toward his own gesture, arouses in himself the attitude which is aroused in the other, and controls his own acts with reference to the common meaning.

It is Mead's view that the significant symbol emerges out of the gesture when a common object or interest is referred to the gesturer just as it is referred to another. "The vocal gesture becomes a significant symbol . . . when it . . . involves a reference to the self of the individual making it." (69:46) We shall reserve the development of Mead's concept of the self till the next chapter, but what needs to be indicated here is that:

When this conversation of gestures can be taken over into the individual's conduct so that the attitude of the other forms can affect the organism, and the organism can reply with its corresponding gesture and thus arouse the attitude of the other in its own process, then a self arises. (69:167)

In the significant symbol the individual is always pointing out to himself as well as to others; it is a self-conscious gesture. The heart of Mead's position is that:

. . . conscious communication develops out of unconscious communication within the social process; conversation in terms of significant gestures out of conversation in terms of non-significant gestures; and the development in such fashion of conscious communication is coincident with the development of minds and selves within the social process. (69:179n)

Mead points out that this type of behavior as far as he knows is not observed in the acts of the non-human animals. They respond to signs or signals but do not adjust through signs mediated by significant symbols. Mead uses the example of the sentinel of a herd that gives a signal in the act of running away.

The sentinel does not regard itself as the individual who is to give a signal; it just runs at a certain moment and so starts the others

to run. But with a mind, the animal that gives the signal also takes the attitude of the others who respond to it. He knows what his signal means. A man who calls "fire" would be able to call out in himself the reaction he calls out in the other. In so far as the man can take the attitude of the other—his attitude of response to fire, his sense of terror—that response to his own cry is something that makes of his conduct a mental affair, as over against the conduct of the others. (69:190)

Thus the man who calls "fire" does not have to carry out the attitude of escape but can check this tendency and act with conscious control over his conduct.

According to Mead's view the tendency to act as the other person puts the individuals in rapport with each other in their cooperative enterprise. "One participates in the same process the other person is carrying out and controls his action with reference to that participation." (69:73) The speaker puts himself in a position of responsibility for his attitude in that the other will act in a certain way and he, being aware of this, will act in an appropriate fashion. In other words, when there is common significance in the act, the agents in the act can cooperate in a highly developed way. The significant symbol makes possible a much more perfect mutual adjustment within a serial act than is provided by prior types of communication.

It is this participation of one individual in the act of the other and the control over his act in the light of that participation that enables common meanings to emerge in cooperative behavior. Mead says with regard to this point:

There are two characters which belong to that which we term "meanings," one is participation and the other is communicability. Meaning can arise only in so far as some phase of the act which the individual is arousing in the other can be aroused in himself. There is always to this extent participation. And the result of this participation is communicability, i.e., the individual can indicate to himself what he indicates to others. There is communication without significance where the gesture of the individual calls out the response in the other without calling out or tending to call out the same response in the individual himself. Significance from the standpoint of the observer may be said to be present in the gesture which calls out the appropriate response in the other or others

within a co-operative act, but it does not become significant to the individuals who are involved in the act unless the tendency to the act is aroused within the individual who makes it, and unless the individual who is directly affected by the gesture puts himself in the attitude of the individual who makes the gesture. (69:81n)

Through reflective participation, or the indication of a meaning to the self when it is indicated to another, the individual is able to direct his conduct in the light of common interests. The individual who calls "fire" is pointing out a commonly significant object to which a coordinated response may be made. One will call the fire department and the other will evacuate the occupants of the building. The attitude of each is present in the other and enables him to carry out his part of the cooperative venture. Through participation there is communicability and because of the latter a more extensive and refined degree of participation.

The vocal gesture which is not a language gesture is not, in Mead's view, to be confused with the significant symbol. He points out that the roar of a lion is not accepted by the lion, as it is by his prey. There is no identity of stimulus or response. In the case of the elaborate vocalization processes of birds, Mead does find situations in which a bird is influenced by its own stimulus. However, this action of self-stimulation on the sub-human level does not lead to the type of behavior which we call reflective. There is not the inhibition of action on the sub-human level that makes possible analysis and representation. As we have seen, Mead considered that a check at any point in the complex act of the non-human animal tends to frustrate the whole act or to lead to a variety of overt responses that we call trial and error or random activity. The conscious form, on the other hand, experiences a check in response which brings about analysis and reconstruction in order that the act may be tried out in advance of overt completion. Mead points out that birds and all non-human animals lack the complex nervous system which provides for the more involved delay that man makes use of in the act involving the significant symbol.

Mead, accordingly, finds new behavior characteristics emerging at the linguistic level of delayed reaction.

Human conduct is distinguished primarily from animal conduct by that increase in inhibition which is an essential phase of voluntary attention, and increased inhibition means an increase in gesture in the signs of activities which are not carried out; in the assumption of attitudes whose values in conduct fail to get complete expression. (32:178)

Whereas gestural responses are relatively immediate, the reactions involved in behavior on the language level are delayed while processes of voluntary attention and selection are carried out.

Men can combine not only the responses already there, which is a thing an animal lower than man can do, but the human individual can get into his activities and break them up, giving attention to specific elements, holding the responses that answer to these particular stimuli, and then combining them to build up another act. (69:94)

The human individual can hold on to the analyzed elements of the act and indicate them to others; thus an elaborate process of control and reconstruction can go on before the overt completion of an act. This is what we call reflective thinking, and it is the emergence of the significant symbol. Thus, on the physiological side, it is what Mead calls "temporal dimension" (69:117) of the human central nervous system that makes possible the emergence of language out of the interaction of gestural communication. The human organism is able to control a prolonged act by the indicating responses which others make to the various parts of the act. The ability of the human form to delay its responses enables the social situation to function in the prediction of what is to come. Consequences can be tried out in advance. It is this structural and functional complexity which presumably marks the emergence of language communication out of a prior, immediate type of behavior.

In Mead's position, the elementary attitudes of the biological organism which become symbolized by language offer a behavioristic description of ideas.

The inclusion of the matrix or complex of attitudes and responses constituting any given social situation or act, within the experience of any one of the individuals implicated in that situation or act (the inclusion within his experience of his attitudes toward other individuals, of their responses to his attitudes toward them, of their attitudes toward him, and of his responses to these attitudes) is all that an *idea* amounts to; or at any rate is the only basis for its occurrence or existence "in the mind" of the given individual. (69:72n)

The getting of an idea is a symbolic process, for one takes the attitude of another and works out in symbols one's response to that attitude. "Your idea is the reply which you make to the social demand made upon you." (69:180) The forming of a hypothesis means the isolation of an attitude or tendency to carry out an act in a certain way before the act occurs.

Whereas, as Mead shows, in Watsonian behaviorism the control of the conditioning of reflexes, which is the basis for his explanation of human conduct, demands a super-mind to order thought, Mead's broader behaviorism finds control within the act of thought. The individual tests implicitly the various ways of completing an act in advance of its overt completion through his ability to delay the act while the symbolic process goes on. Ideation, as the occupancy of several attitudes at the same time and the inhibition of the overt act while the various consequences involved in the contemplated completions can be symbolically determined, serves as its own control. Such a description of ideas does justice to the thought process and does not appeal to any control ulterior to the social behavior pattern in which the individual is involved.

Reflective thinking, in Mead's description, emerges in bio-social behavior when the individual, by means of the significant symbol, points out meanings to himself when he points them out to others. When an individual carries out this act within his own experience, for himself alone, he is reflecting. He puts himself in the place of the other individuals and responds to his own stimulus as the other individuals would. The individual thus takes over, through what Mead calls "reflexiveness" (69:134), a social behavior pattern, and that is what we call his

mind. As we shall see in the next chapter, this mechanism also makes possible the origin and growth of the self.

Mead's position is that reflection involves the individual's taking over the pattern of the social, linguistic act and trying out an experience in advance of its overt completion by means of the meaningful responses which have been achieved through participation and communication in group affairs.

. . . The society in which we belong represents an organized set of responses to certain situations in which the individual is involved, and . . . in so far as the individual can take those organized responses over into his own nature, and call them out by means of the symbol in the social response, he has a mind in which mental processes can go on, a mind whose inner structure he has taken from the community to which he belongs. (69:270)

Reflection that goes on in the inner form of one's private experience is made possible by the internalization within the experience of the individual of overt social patterns of action. Cooperative conduct, the empirically observable behavior of communicating individuals, is the pattern in terms of which the act of thought takes place. By means of linguistic signs the individual is able to abstract from the public operation of common enterprises a pattern which enables him to act in his own privacy with a view to the consequences of the act. Thus, Mead's hypothesis is that we do all of our reflective thinking in the form of conversation.

To Mead, then, reflection is the carrying on of a conversation within one's self, and is made possible by the significant symbol. Thinking goes on when an individual uses the stimulus of a symbol to call out in himself the responses which others would make. The thinking process, as Mead sees it, can be described as "self-conditioning." (69:108) In significant speech the individual is not only conditioning others, but also conditioning his own responses. It is this self-conditioning which Watson's oversimplified mechanism of the conditioned reflex failed to take account of.

According to Mead's view, ". . . thought remains in its abstractest form sublimated conversation." (31:407) When-

ever one stops to think something out, one indicates to oneself the elements of a field which call for certain responses. One isolates and recombines the indicated meanings in order that the consequences of the future act can be foreseen. The act can take new and unhabitual channels through this reflective anticipation of what its meanings will be. The drawing of inferences and implications, the reconstruction of existing universals, even the highly abstracted reflection of mathematics, in which one carries on the "process of reasoning without knowing what the meaning is" (69:268), are, in the last analysis, refinements within communication and follow the pattern of the linguistic act.

It is, then, at the point of the significant symbol that Mead's contribution is most distinctive, for in it the impulsive intelligence of animal behavior becomes the reflective intelligence of human conduct. It is not a question of which came first, mind or symbolization, for in Mead's conception they are equivalent terms; with the emergence of significant symbols what we symbolize as 'mind' arises. This position does not deny that there is a type of intelligence existing before symbolization appears. It connects that animal intelligence with the distinguishing traits of human conduct through the explanation of mind as symbolic functioning. We are thus saved from seeing mind as a miraculous mutation involving the emergence of the psychical out of gross irrationality. It is in the significant symbol that the continuity and emergence implied in the evolutionary hypothesis are empirically shown.

How successful is Mead in explaining the appearance of reflective conduct? The writer believes that in his description of the emergence of the significant symbol out of prior non-mental behavior there may be some gaps which are not thoroughly bridged. The concept of emergence, as we have noted, involves both continuity and the appearance of the novel. Though Mead aims to give an account of the emergence of the significant symbol in terms of prior existing behavioral patterns, emergence itself means the appearance of something that cannot be exhaustively stated in terms of the earlier mecha-

nisms. In the concept of emergence the novel aspects in behavior are not taken for granted, but the conditions which lead up to these emergents are described and the emergent itself is dealt with as genuinely irreducible. The hypothesis of emergence does not explain a phenomenon by resolving it into prior conditions, nor does it presuppose the existence of the emergent by dealing with it in terms of itself. Rather, the emergent is located in terms of the conditions which call it forth and is dealt with in terms of its relationships with the new field which the emergent creates. Mead's position thus avoids on the one hand the fallacy of reduction and on the other hand the fallacy of taking for granted the phenomenon that is to be explained.

The writer tends to feel, however, that not all of the question may be settled in such a manner. In describing the emergence of the significant symbol Mead says that the gesture becomes the symbol when it arouses in the gesturer the same response that it arouses in the other. He also maintains, as we shall see in the next chapter, that the meaning of the gesture is the adjustive response of another organism to the gesture. Now what is involved in this explanation is that one individual observes the response of the other to the gesture and takes over that observed attitude into his own response; otherwise he does not know that his response is identical with the response of the other. One must presumably perceive the attitude of the other before one can take the attitude of the other.

But what is involved in that observation or perception of the response of the other? Although Mead does not draw a rigid distinction between the perception of the animal and that of the human individual, is there not something more in the perception of the response of the other than prior animal perception explains? However, at this stage of Mead's description of emergent mind we have not yet explained any such shift in the meaning of 'perception.' In other words, how does the behavior of the biological organism provide the kind of intellectual analysis which seems to accompany the observation of the attitude of the other? It appears to the writer that Mead does

not take adequate account of the differences involved in the two kinds of perception and that apparently what we need is a fuller statement of the organic, structural development necessary for the emergence of human perception.

SOME EDUCATIONAL IMPLICATIONS

Before continuing our analysis of the way in which Mead's behavioristic explanation of the significant symbol provides a new understanding of human experience, it would be well to examine some of the educational implications of the concepts with which we have been dealing. We are now interested in three aspects of Mead's thinking that have educational consequences: (a) suggestions for educational psychology that grow out of his behaviorism, (b) implications of his concept of attitudes, and (c) educational hypotheses involved in the significant symbol.

(a) Mead sees that his view involves a new psychological orientation with regard to the relation of sense perception to knowledge. When Mead says that his view accepts the act and not the tract as the fundamental datum for an individual and a social psychology, he is indicating something of great importance for education. In spite of much use of the term "activity" in modern education, we have hardly begun to reconstruct our thinking in the light of its significance. Many still think of knowledge as something built up in the consciousness of the individual, an impression made upon his mind by the perceived structure of objects. Educators continue to operate on the basis of the copy theory of knowledge in which "one has in his mind the impression of that which exists outside." (70:344-5) This is fundamentally a sensationalistic psychology in which "Knowledge is reduced to the relations of the impressions and ideas to each other as they [are poured into or already] lie in the mind." (70:437) Knowledge is an effect produced in the individual by his sensations. Mead's position indicates that educational psychology cannot get away from the dualism of individual mind and something lying outside that is known through the senses until it defines reflective intelligence and

knowledge in terms of the symbolic act through which individuals adjust to their field.

If educational psychology were to explain its phenomena in terms of sequential, on-going, interrelated acts, our concept of "mind" would be freed from the connotation of some inner effect or state of the individual. Educators could be guided by the hypothesis that mind is a characteristic of the interaction of an individual and his field. Educational psychology, if it took the hypothesis that sense perception is the act that is regulated by the temporally and spatially distant qualities of things, would be able to interpret knowledge as something more than the acquiring of information. "Indeed, if information is knowledge, the copy theory of knowledge is entirely legitimate." (71:55) In Mead's conception knowledge becomes a method of discovery whereby existing situations and ways of acting and believing are remade through hypotheses about what is to come. The discrete, atomistic, psychology of naive behaviorism and the mystical associationism of the individualistic view give way to a functional view of the emergence of creative intelligence.

In an educational psychology which accepts the act as the fundamental datum, "stimulus" and "response" are taken up into the continuity of the act rather than treated as atomic elements out of which the act is constructed. As we have noted, Mead's concept of the attitude holds that the response is included in the stimulus aspect of the act in so far as it determines what event will be selected as furthering the demands of the act. It is this correlativity of stimulus and response in the act that makes behavior a process and not just a chaos or a sequence of discrete mechanical reactions. In Mead's behaviorism the act is a serial process in which stimulus and response emerge as functions. The stimulus is that part of the act which is inadequate or incomplete; the response is that which clears up the difficulty, adjusts the organism to its stimulating field, gives a new direction to behavior, and makes for a new stimulus. Neither is discrete, and the distinction between them is functional rather than temporal, or that of cause and effect.

Such a view describes the process whereby an agent in an environmental field is reconstructing his conduct so that it may be directed toward foreseen ends. Learning is not simply a matter of an S—R bond being stamped into an individual's nervous system by an external controlling agency. Learning, especially human learning, also involves purpose, behavioristically interpreted.

(b) If education were to accept Mead's hypothesis that the attitude is that aspect of the act which controls what one is going to do and what one is going to pay attention to, then educators would seem to have a much larger responsibility than the teaching of the three R's and the passing on of our accumulated knowledge. In addition to providing the intellectual tools with which we work, education should cultivate desirable attitudes and dispositions in which that knowledge is operative. The belief that teachers can give the child the means of expression but cannot appreciatively affect his attitude toward learning is clearly not the implication of Mead's position. Attitudes and tendencies to react in certain ways are changed in the growing individual. Attitudes are communicable, and education is responsible for their development as well as for the teaching of the so-called intellectual tools. Education should become aware of its responsibility in bringing to attention, cultivating, and directing those predispositions, appreciations, attitudes, or reaction tendencies which are involved in all behavior.

The importance of attitudes in schooling is indicated by consideration of attitudes of approval and disapproval. For instance, the terms 'totalitarian' and 'democratic' at the present time arouse their appropriate sets. We can, in general, predict what one's attitude to these words is. Mead's view indicates that education does not merely have the responsibility of enabling individuals to use the basic means whereby they converse, but is also responsible for the cultivation of desirable attitudes and interests and outlooks toward those situations with which we are faced. Mead's position further indicates that the teacher is not free from attitudes but also has his bias

and emotional predispositions. These attitudes are extremely important for it is largely from them that pupils derive their responses. The attitudes of the teacher are a large part of the attitudes which the child takes over and builds into his reflective self. Educators are becoming increasingly aware of the importance of the attitudes developed in the first years of life. The growing child is taking the roles of others and particularly his teachers toward his subject matters, his problems, his "assignments," and his social relationships. The teacher is not merely one of the group who inquires with his pupils into various problems, but the pupils look to the teacher for the roles which are taken. Not only is the teacher expected to have the necessary information to lead the growth of the child, but the teacher is also responsible for making available desirable attitudes which the growing child can take over. We know that some people inspire attitudes of confidence, intellectual honesty, enthusiasm, appreciation, and creative inquiry, whereas others are less effective teaching personalities. Mead's view would seem to indicate that the teacher should give more attention to the attitudes which are being taken in addition to the preparation of lesson plans that cover the designated subject matter. His explanation of the mechanism of taking the attitude of the other leads to valuable insight into this whole field of pupil-teacher relations. What seems to be indicated is that education needs to pay more attention to these aspects of behavior and see that they are brought into the open, recognized for what they are, and controlled and directed in the light of the consequences to which they lead.

Not only does the child take the attitude of the teacher toward his interactions, but the teacher is "putting himself in the position of the child whom he is undertaking to instruct." (69:326) This is what we mean when we say in a less accurate way that a teacher succeeds in "getting down to the level of the pupils." The teacher, in the presentation of his subject matter, is able to get outside his adult attitudes and take the role of the growing individual toward situations which are new to him. The ". . . actual success of a teacher depends in large

measure upon this capacity to state the subject matter of instruction in terms of the experience of the children." (34:691) It is to this role-taking function that we refer when we speak of the sympathetic person who participates effectively in the attitudes of others. The common observation that the teacher frequently learns as much as the pupil seems to describe the insight which the teacher gets into the role-taking pattern of human learning. The effective teacher is he who is sensitive to the attitudes of the pupils and develops them into more fully developed personalities. That this sensitivity to attitudes and ability to deal sympathetically with them also describes parental relations and the general economic and social interactions of our complex life is apparent.

If the attitudes of the biologic individual become, through the use of the significant symbol, the attitudes of the reflective self, education's task is to bring these unexamined action tendencies into conduct that is aware of its attitudes. Teachers should be sensitive to their opportunities to direct uncritical attitudes into reflective purposes, planned behavior patterns, conduct that is guided by a view to its consequences. The implication of Mead's position seems to be that educators should recognize that in the conflict of attitudes they have the opportunity to encourage a way of acting that is more than trial and error, that involves the rational analysis of means and consequences, of purposes and anticipated achievements. The integration of attitudes around a method of inquiry, the creation of common interests and purposes, and the free exchange of points of view are indicated as the fruitful approach to the tasks of teaching the young.

Mead sees at the heart of the learning process the mechanism whereby one takes the attitude of the other. The factory worker's son learns about the farmer's life by taking the attitude of the farmer toward his environment. The pupil learns about his physical environment by taking the attitude of the scientist, engineer, carpenter, banker, or soldier. This in Mead's opinion is the pattern of all reflective learning and the task of the agency that is designated to teach the young is to become in-

creasingly clear on the nature and implications of this process.

(c) Mead's view that reflective intelligence arises within biological behavior when it acquires new traits implies a different view of the nature of the educational task than does a philosophy of mind that sees rational powers as separable from the non-reflective. In the latter view education's responsibility is the development of cognition that has no intimate and necessary relation to impulsive behavior. Consequently, education can concern itself with the higher thought processes without any marked recognition of the needs of the biologic individual. But in such a view as Mead's where the reflective and the impulsive cannot be separated, any educational recommendations have a more complicated reference. In his position education, to be adequate, should assume responsibility for the attitudes and dispositions in which intellectual life has its conditions and from which all reflection arises. These organic conditions are particularly important when intelligence is seen as involving the sensitivity of the organism. Education's task is that of cultivating the attitudes, sensitivities, and attentiveness of the biologic individual so that those non-reflective aspects of behavior take on the characteristics of cognition.

Educators have sometimes spoken of this broader dimension of their responsibility as "the education of the whole child" and have implied that the child was the sum of the addition of the impulsive, reflective, aesthetic, and other functions of the individual. The educational result is that "the whole child" is developed by building up a curriculum in which these functions are developed in various discrete courses. As we have seen in the second chapter, Mead's view regards this as the operation of an inadequate eclectic psychology. His emphasis on the totality of behavior in which we can distinguish elements but which cannot be explained as built up out of these elements implies a different view of the curriculum. It is not a course of study in which various courses correspond to the atomistic behavioral equipment of the child. It is rather a totality of experience in which can be found all the aspects of the act: impulse, attitude, percept, symbol, meaning, and appreciation. There

are skills, attitudes, habits, reflective insights, and enjoyments in all distinctively human behavior, and they are not developed appropriately in isolation from the act in which they function. "The whole child," when interpreted in the light of Mead's position, is a phrase which applies to the child's act and not to a view of human nature that piles one box of abilities upon another like goods in storage. Mead's recommendation is that we come to deal with behavior in terms of its integrated wholeness in the act rather than as a combination of separate elements.

The significance for specific classroom procedures of Mead's view of mind as symbolic functioning can be indicated by referring to several particular observations. Mead says:

We sometimes speak as if a person could build up an entire argument in his mind, and then put it into words to convey it to someone else. Actually, our thinking always takes place by means of some sort of symbols. (69:146)

Much of classroom teaching follows the assumption that reasoning takes place in the mind and is then expressed in symbols. We speak of people getting their ideas in order and then expressing them in words. Our language habits involve us in supposing that we search for an expression to convey what we have in mind after the fashion of searching for pen and paper to jot down a suggestion. Mead's approach indicates that what we have in mind actually is what we symbolize in words. When a pupil excuses himself on the basis that he knows what he wants to say but cannot put it in words, Mead suggests that the meanings have not emerged from vagueness to clarity rather than that the meanings are there but just cannot be articulated.

Another indication of the way in which Mead's insight operates in particular educational situations pertains to the teaching of foreign languages. Mead observes that "A person learns a new language and, as we say, gets a new soul. He puts himself into the attitude of those that make use of that language." (69:283) In other words, learning a foreign language, accord-

ing to his view, is not merely adding another vocabulary to the native tongue. It involves the reconstruction of the learner, for he takes over other attitudes, other ways of acting and believing, and a readjustment of the whole individual is involved. Mead's position seems to indicate that the study of new languages, in the sense of a student in the United States studying Spanish, as well as a farmer's son taking the attitude of a factory laborer toward his environment, should be seen as the heart of the educative process.

Mead's analysis of the origin of all reflective conduct in the conversation of significant symbols seems to advise educators to become more and more aware of the nature of the social act. If the development of reflection emerges in the ability to take the attitude of the other, then an important educational task is to provide for that type of experience. Apparently Mead would recommend a vast extension of the opportunities to take the attitude of the other by overt situations in which the child comes into contact with others. Presumably these overt conditions are extremely important in the younger child, and after the child has perfected the mechanism of taking the role of the other, the individual act of rehearsing the attitude of others in imagination would provide the conversation that is reflection. What is of particular educational importance is that the school should make use of as many and as varied attitudes as the child's ability can employ, which seems to mean that school-room situations should be based not only on opportunities to take the attitudes of other members of the classroom group but also on opportunities to take the attitudes of the numerous others outside the classroom. Presumably, the school should bring in the attitudes of the larger community, or better, go out into the community for the development of its varied attitudes. To formalize education within the walls of the academic classroom is an inadequate procedure, according to Mead's position.

If reflective intelligence develops in the process of taking the attitudes of others through the significant symbol, education would seem to have direct responsibility for guiding this process rather than leaving that control to other social agencies or to

undirected whim and fancy. Mead's view of the nature of the growth of the reflective individual recognizes that many agencies other than the school are involved in the creation of the conscious self, and his view implies that education's task is that of bringing these agencies into desirable relationships with individuals. Such a view indicates that there is a great educational challenge in the selection and control of the social attitudes which an individual faces. This means that educators, whether they like it or not, are involved in controversial matters in that whenever they educate they are obliged to select certain attitudes and to reject certain others. To leave the child to his own devices or to maintain that all social attitudes are equally fruitful, sound, and desirable would be the antithesis of Mead's educational position. In the later parts of this study we shall deal with the general nature of the attitudes which Mead considered most desirable.

SUMMARY

Mead's behaviorism accepts the complex social act as the fundamental datum for an empirical account of the origin of mind. His concept of the act enables him to explain learning, knowledge, and mind in terms of the interaction of an individual and his field. Such a description satisfies the requirements of the research method for it makes open to verification the steps in the emergence of cognitive intelligence.

In his account of the emergence of language communication out of non-mental behavior Mead describes the behavior of the biological organism as an emergent form which struggles to adjust and maintain itself through its sensitivities and responses to its field. In the effort to fulfill its needs the organism reacts selectively to its environment. Attention is a mark of the process of selective adjustment. With the emergence of sense organs the response of the organism is to things distant in space and involves a temporal sequence, but not the prolonged delay of response which characterizes conscious behavior. When the behavior of the organism is coordinated by a central nervous system, Mead uses the term "gesture" to de-

note the resulting selective nature of that behavior plus its ability to take account of future aspects of the act.

When an attitude of one organism is selected as a stimulus by another organism, Mead identifies the act as gestural. This type of biological behavior is the conversation of gestures, evidenced in the dog fight, an elementary, non-conscious conversation at the non-human level. This gestural behavior evidences intelligence, for there are purposes operative and conduct is controlled with reference to future ends; but there is no prolonged interruption of the act while things are dealt with symbolically to see what possibilities of weal or woe they contain.

Mead uses the term "significant symbol" to describe the kind of behavior in which the individual who in making a gesture is able to perceive the influence of the gesture upon the other and take over the response of the other into his own response. The significant symbol thus indicates to the gesturer what the other individual is responding to and has the same value or meaning for him as it has for the other. Meanings emerge within the context of group acts of this kind. The gesture which makes possible these cognitive meanings is the language gesture, for it carries the same stimulus to the gesturer as to the other individual. In referring to the self, the significant symbol makes possible the self-conscious individual and the control of conduct in the light of common interests.

Such an account of the intermediate steps in the emergence of mind provides a view of learning that can be put to the pragmatic test. When learning is described as the act of taking the attitude of the other, we are given an explanation that can be tried out and shown to make an operational difference. Mead's view of learning can be shown to have significantly different educational implications from a position which describes learning as an effect within an individual.

CHAPTER IV

Meanings, Objects, and Universals

The Symbol Involves Cognitive Meanings.—How Physical Objects Are Abstractions from Social Objects.—Mead's Behavioristic Explanation of Universality.—The Field of Individual Mind.—Summary.

THE SYMBOL INVOLVES COGNITIVE MEANINGS

MEAD sees that the language gesture of the human individual has a unique value in that it is the same stimulus to the person giving the gesture as it is to the person observing the gesture. It makes possible an identity of response between the two people that other gestures do not implement. Because the two individuals in the social act have a common stimulus leading to a common response, we can say that they have a common or shared meaning.

Meanings, according to Mead's hypothesis, are based on a triadic relation: "A gesture by one organism, the resultant of the social act in which the gesture is an early phase, and the response of another organism to the gesture. . . ." (69:76) Mead uses as an example, ". . . the chick's response to the cluck of the mother hen is a response to the meaning of the cluck; the cluck refers to danger or to food, as the case may be, and has this meaning or connotation for the chick." (69:77) The hen gives a signal and the chicks respond to the signaling act. This is not to say that the hen clucks in order to guide the chicks. Mead's use of the term "connotation" in this connection seems misleading.

. . . The hen that pecks at the angleworm is directly though without intention indicating it to the chicks. The animal in a herd that scents danger, in moving away indicates to the other members of the herd the direction of safety and puts them in the attitude of scenting the same danger. The hunting dog points to the hidden

bird. The lost lamb that bleats, and the child that cries each points himself out to his mother. All of these gestures, to the intelligent observer, are significant symbols, but they are none of them significant to the forms that make them. (54:160)

Although the non-human animal uses signs and presumably observes the effect of its gestures upon others, at least to the extent of stopping the gesture after the response of the other, such animal acts cannot be said to deal with meanings that have identical significance to all members of the act. The gesturer does not take the attitude of the other toward his own gesture and respond to it as others respond. Though the gesturing mechanism that leads to cognitive meanings is present on the non-human level, animal behavior is not consciously controlled conduct: the gesture does not involve a meaning that is isolated, symbolized, and identically operative in the various individuals in the act.

"The mechanism of meaning is thus present in the social act before the emergence of consciousness or awareness of meaning occurs." (69:77) Mead is supposedly distinguishing between two levels of meaning in the act. There is meaning as indication, as pointing, which does not involve any consciousness of meaning, as in the example of the hen and chicks or the hunting dog. And there is meaning as symbolization, meanings in their representative capacity. Meanings when symbolized are isolated from the social act and dealt with in abstraction from their immediate situations. Behavior which involves symbolized meanings is conscious behavior; it knows what it is about. It can map out its course beforehand and say, "If this event or individual does so and so, I will do this." In the awareness of meaning there is involved a responsible participation of individuals in the act so that the meaning which one isolates may be taken by the other as that meaning with which he also is concerned.

Mead sees that an animal that gives a vocal gesture cannot be said to be using a significant symbol. The vocal gesture of the animal does not involve putting himself in the place of the other. The animal does not direct his later conduct by arous-

ing in himself the response which he calls out in the other. It may indicate something in a gesture, as the clucking of the hen may be a sign, even though the hen may not cluck for the purpose of guiding the chicks. But the animal does not arouse in itself the response which it is arousing in another. The animal is not dealing with meanings as such. The meanings are not isolated, are not abstracted from the social act. The vocal gesture of the animal is a signaling act, not language in the sense that meanings are indicated as meanings. There is signaling but not symbolization. Only when the vocal gesture is significant are there common meanings, an awareness of meaning that constitutes consciousness. When the vocal gesture affects the individual giving it as it affects others, according to Mead's view, then the individual knows what he is doing. Consciousness of meaning and the presence of rudimentary meaning in the act are two separate things. Consciousness of meaning, mind, is distinctly human. The presence of meaning in a social act is conditioned by a mechanism that precedes mind.

When we have behavior involving language, Mead believes we have a social act in which meanings are referred to by symbols. Language "lifts out of the social process a situation which is logically or implicitly there already." (69:79) Language does not constitute meanings but makes possible their being taken up into the complex relationships of symbolism. As Mead phrases it, "Meanings are in nature, but symbols are the heritage of man." (69:78n) Meanings are in nature, are in objects, when an organism responds to an object in terms of what it signifies. The significant symbol is, to Mead, that emergent within human conduct that enables us to deal with meanings as such, as isolated in varying degrees from their social matrix. The symbol makes it possible for us to deal with meanings as we are aware of them, as we are conscious of them.

As the writer understands it, Mead is not saying that meanings in the second sense, as representations, exist without the presence of the human individual who symbolizes and responds to those meanings, although Mead's expressions on this point seem open to question. When he affirms that "meanings are in

nature, but symbols are the heritage of man," he seems to be saying that meanings as used by man are not dependent upon that symbolization for their existence. But by and large it seems that Mead means that meanings are not located exclusively within the psychical nature of the individual, but are actually in things when those things come into their symbolic relationships with man, when they become objects of knowledge. In connection with Dewey's treatment of the universal spade which is irrelevant to the passing of individual spades, Mead says:

He [Dewey] insists . . . that the meaning resides in the spade as a character which has arisen through the social nature of thinking. I suppose we can say in current terminology that meanings have emerged in social experience, just as colors emerged in the experience of organisms with the apparatus of vision. (69:88)

Apparently it is in this light that the statement "meanings are in nature" is to be understood.

It is Mead's hypothesis that an awareness of meaning is that which constitutes intelligence as we have it on the human level. It "consists mainly in a consciousness of attitude" (33:399) and is made possible by the significant symbol. It is not a state of consciousness, a psychical process going on in the mind, or an intrusion into the bio-social aspects of behavior of something foreign to that observable behavior. The awareness of meaning is an emergent within the "external, overt, physical, or physiological process going on in the actual field of social experience." (69:79) This awareness emerges when the gesture becomes the significant symbol and in so doing allows the cooperative behavior of persons who respond alike to a speech stimulus.

In Mead's position, the meaning of a gesture actually is the response of another individual to that gesture. "The meaning of a gesture on the part of one organism is the adjustive response of another organism to it." (69:80) Participation and communicability are essential to meaning. The language gesture is one where the meaning can be isolated from the response

of the other and taken into the experience of the person using the symbol. We see what an object or concept means by trying it out on another individual. His response can be symbolized and adopted as our own. Then we say that we have the meaning or significance of the act.

To Mead symbolization is not a mere mirroring of an already existing situation or object, for it constitutes objects which would not exist save for the relationship which language creates.

Language does not simply symbolize a situation or object which is already there in advance; it makes possible the existence or the appearance of that situation or object, for it is a part of the mechanism whereby that situation or object is created. The social process relates the responses of one individual to the gestures of another, as the meanings of the latter, and is thus responsible for the rise and existence of new objects in the social situation, objects dependent upon or constituted by these meanings. (69:78)

Just as food objects exist only for organisms that can digest those objects, so objects are constituted in terms of meanings for individuals with the mechanism of symbolic communication. The ability to deal with meanings in terms of symbols changes the nature of the objects that have that meaning. They are taken up into a more complex matrix of relationships, and a whole new set of objects, which exist in virtue of the emergent, is created.

Thus, as Morris points out¹ and as Mead realizes (69:112), mind, as seen from Mead's point of view, is doubly functional. It is functional in the sense that it serves a purpose, that of continuing an inhibited act. Mind is instrumental to action in which consequences are foreseen. In the other sense, mind is functional in that it is mediated by symbols. Symbols stand for the meanings of events; they are representational; and mentality consists in events which are thus symbolized. Mind is functional in that it serves organic activity and in that it is the operation of symbolized events.

¹ Charles W. Morris, *Six Theories of Mind*, pp. 276-7. Chicago: The University of Chicago Press, 1932.

Educational Implications

Mead's analysis of the reflective act as that which involves an inhibition of impulsive or habitual conduct and a delay while the reconstruction of the act in terms of symbolized meanings occurs has considerable educational significance. If delay is an essential part of reasoned activity, then educative processes must be of sufficient temporal spread so that new operational meanings can be arrived at. Mead's view suggests that many of our educational activities are not of sufficient temporal scope to allow for the development of conduct that is guided by the thorough investigation of its consequences and the careful elaboration of its meanings and implications. Short-term projects become busywork and do not provide for the complete act of thought. According to Mead's analysis of mind, the temporal spread in educative acts should be sufficient to provide for conduct that is qualitatively different from that evidenced in many school projects. Reflection through the operation of significant symbols, taking the attitude of the other, and a reconstruction of things into objects by dealing with their cognitive meanings should characterize educative activities. If education is composed of a succession of activities so brief that new increments of meaning and the undergoing of the consequences of a reconstructed way of behaving are short-circuited, the educative process not only fails but is miseducative because of the habits of superficiality which are encouraged. (See also page 135.)

Mead's position that the meaning of one's behavior is the response which another makes to one's act and that the reflective individual takes over the response of the other so that the meaning becomes his indicates that the pattern of human learning is always a social pattern. Learning, if it be concerned with conscious meaning, always involves interaction, participation, and communicability. Mead's belief indicates that education should be concerned to see that its activities are such that the responses of others in a cooperative enterprise are available in a form that is communicable to others. This means

not only that pupils should participate in social activities but that these activities should be carefully developed so that students can articulate what they are doing, can share the responses of others to the various phases of their acts, and can penetrate to the fullest possible significance of their behavior. We have already indicated that this participation should extend beyond the limits of the classroom group to include those attitudes which reach out into a broader community. In Mead's opinion the development of cognitive meanings reaches its fullest development in the system of universally significant symbols in which a meaningful response is common to all who use the language. Education apparently has this universal participation and communication of meanings as its ideal.

HOW PHYSICAL OBJECTS ARE ABSTRACTIONS
FROM SOCIAL OBJECTS

We have been dealing with Mead's analysis of the social process which language implements as the sufficient mechanism to explain human conduct as it deals with social objects. We have now to discover how Mead's account of the growth and functioning of mind takes care of that behavior which is not immediately social but which deals with physical objects. How does social behaviorism account for conduct which deals with "that object to which there is no social response which calls out again a social response in the individual"? (71:292)

From the point of view of the growth of the individual, Mead points out that the child discovers other organisms and responds to others before he discovers either things or himself. "The child forms social objects before he forms physical objects" (69:184n), and the non-social objects of nature are dealt with in terms of the social acts which precede them.

The child gets his solutions of what from our standpoint are entirely physical problems, such as those of transportation, movement of things, and the like, through his social reaction to those about him. This is . . . because his primitive process of reflection is one of mediation through vocal gestures of a co-operative social process. The human individual thinks first of all entirely in social

terms. This means . . . not that nature and natural objects are personalized, but that the child's reactions to nature and its objects are social reactions, and that his responses imply that the actions of natural objects are social reactions. (69:377)

The gestural act which develops into language communication is the means whereby the child comes to deal cognitively with physical objects, and it is only after the child has taken the attitude of another through the significant symbol that he can have the means for dealing with physical objects in terms of their cognitive meanings. The infant, like the nonhuman animal, may deal with things in an immediate, impulsive way, but can hardly be said to be reflecting or consciously reconstructing his habitual or impulsive responses through an analysis of his field and the anticipation of the consequences of his acts.

Mead's suggestion that "the physical object is an abstraction from a social object . . ." (71:190) seems to be based on the observation that the child deals with inanimate things as though they were animate. He takes the attitudes of physical things because of his ability to take the attitude of the other in cooperative acts.

The physical object is an abstraction which we made from the social response to nature. We talk to nature; we address the clouds, the sea, the tree, and objects about us. We later abstract from that type of response because of what we come to know of such objects. The immediate response is, however, social; where we carry over a thinking process into nature we are making nature rational. It acts as it is expected to act. We are taking the attitude of the physical things about us, and when we change the situation nature responds in a different way. (69:184)

Because the role-taking individual deals with non-social objects in the same way that he deals with social objects, Mead feels that we can say that natural objects are abstractions from prior social ones. The child generalizes his reflective attitude and by taking the attitude of things, these physical objects become rational and act as they are expected to. In Mead's view,

this ability to get a social response out of non-social objects of nature distinguishes the human from the animal.

It is Mead's hypothesis that in reflective behavior which deals with physical things the hand is largely responsible for determining the course of the act.

It is important that a man should be able to descend from a tree (providing his ancestors lived in a tree), but it is of greater importance that he should have a thumb opposite the fingers to grasp and utilize the objects that he needs. We thus break up our world into physical objects, into an environment of things that we can manipulate and can utilize for our final ends and purposes. (69:249)

This "crumbling analysis of manipulation" (71:283) enables us to deal with things in terms of their responses to our acts. The human being is able to manipulate the things around him so that he can create varying situations in which things can behave in their various characteristic ways. Through the dexterity of the human hand things acquire properties which an animal paw apparently does not have. Through the manipulation of his field the human animal has a means for seeing how natural objects respond under varying conditions, and this ability plus that of symbolic representation enables the human individual to converse with non-social objects.

Mead's hypothesis is that through the manipulation of things by the hand the human individual is enabled to extend the act through a manipulative stage to a consummation. In non-human animal behavior contact seems to be coincident with the close of the act. In human behavior, on the other hand, the crumbling analysis of manipulation precedes and prepares for a final stage in which things are used, enjoyed, and appreciated through a knowledge of their properties. Through the perception of things at a distance in terms of how they will act when manipulated, the individual arrives at objects that have inherent natures and behave in characteristic ways. Man deals with objects in terms of universals. This type of behavior is made possible in Mead's opinion by the conversation of attitudes and the involved analysis of the human hand.

The essential thing is that the individual, in preparing to grasp the distant object, himself takes the attitude of resisting his own effort in grasping, and that the attained preparation for the manipulation is the result of this co-operation or conversation of attitudes. The mechanism for it presumably arises out of the interplay of different parts of the body against one another in adjusted stresses, primarily of the hands. If this were elaborated into its implied details, it amounts to a social hypothesis of what will happen when one comes into manipulative contact with the distant thing. I am prepared to seize the object, and then in the role of the thing I resist this grasp, pushing, we will say, the protuberances of the thing into the hand and arousing more effort in the hand by the leverage which the extended portion of the object will exercise, and through these responses of the thing I reach not only the final attitude of prepared manipulation but also a physical object with an inside and an inherent nature. About this fundamental core can gather the other things that an object can do to us, its efficacies, its active properties. (71:110)

The conversation between an individual and an object, which constitutes intelligent behavior in regard to physical things, is similar to the conversation between two individuals. Although physical objects do not give social responses in the way that social objects do, they do interact so as to allow the individual to take the attitude of the physical object and to deal hypothetically with what their distance qualities promise. We should bear in mind that when the term attitude is used in connection with physical objects, Mead is not using it in an anthropomorphic sense but rather he is using it in the sense that things respond to us in a variety of ways as we deal with them.

In Mead's opinion it is through the individual's taking the attitude of the thing that the thing acquires an "inside." When a physical object is brought into contact experience, there is a cooperative behavior between the individual and the object. "The physical object must literally do as much as we do if we do anything." (71:109) Mead points out that in our everyday activities the things about us cooperate in our acts. The earth is solid and resists our step; an object has the resistance which the hand gives it in its contact. We get to know the charac-

teristics of an object by the cooperation of the physical object. This:

implies that the individual has called out in the mechanism of his organism the sort of resistant response he is seeking in the physical thing with the sense of effort which accompanies his own response. He asks of the thing to reply in terms of his own conduct. This placing of one's self within the object and thus giving it an inside belongs to the formation of the hypothesis. . . . (71:187)

The taking of the attitude of the physical thing through the mechanism of the hand enables man to deal with physical things in terms of their responses.

There must be an action of the object equal to the action of the organism upon it, in order that it may be in our experience a physical thing. In grasping the object, in pushing it, in leaning against it, in any manipulation of it, the object must come back upon the organism with equal resistance, if it is to be and maintain itself a thing. (67:137)

The means whereby the thing acts upon the organism is found in the individual's taking the attitude of the thing and presenting that response of the thing as a stimulus to the response of the individual.

Through the mechanism of the cooperative social act, according to Mead's hypothesis, man is able to talk with nature, to respond to physical things in terms of their potentialities. He can act with regard to physical things in terms of what they signify concerning what is not immediately present. This is the attitude of the engineer or of the scientist, who constitutes his environment by his sensitivity to the socially derived promises of physical objects. Such a person converses with nature in a highly developed way, in a way which greatly contributes to our control over the environment. The development of this rational behavior is made possible by the language mechanism.

In the view of Mead's social behaviorism, operations become intelligent to the degree that physical things take on the role of the promise of what is to come. Because man has in the mechanism of language a means for taking the role of his sur-

roundings and seeing what they do when he acts in certain ways, man is able to transform physical things into objects of knowledge. This is where he gets his control. By this means he can predict how things will behave. He is able to direct his impulses and desires in terms of the outcomes of his interactions. Things take on meanings, and in terms of these new properties we can direct activity by regard for its consequences.

Mead points out that taking the attitude of the physical thing in this way does not mean putting the properties of the thing in the psychical experience of the individual. The object possesses its characteristic traits, its color, its inertia, and these distant qualities await confirmation by the manipulatory stage of the act. These qualities of objects are in the objects when an organism that can deal with them comes into relationship with the physical thing.

Educational Implications

This process of things becoming objects, which Mead is describing, seems to define the intellectual aspects of the task of education. To cultivate the intellectual habit of turning brute things into meaningful objects is one of the primary responsibilities of education. When education, in its reaction against the academic and the formal, assumes that any kind of pupil activity is the sign of desirable intellectual growth, it seems a strange perversion of the pragmatic orientation. Mead clearly implies that activity which never gets beyond a dealing with things, which does not achieve objects, is not mental growth. His suggestion appears to be that educators who are concerned with the importance of activity in the learning process should be concerned to see that the direction of the activity is toward the acquisition of new meanings that give new direction and control to behavior.

The importance of the attitudes of others for the development of cognitive meanings in the educative process has been indicated. Education also deals with adjustments to physical things as well as to social objects, and if we follow Mead's belief these adjustments also take place through the role-taking

process. The discovery of new meanings and new ways of acting in regard to our physical environment is conditioned by an ability to converse with things in terms of what they signify. Mead's position implies that an adequate education is not merely talking about these physical objects, their laws and meanings; it involves the overt manipulation of things in their various capacities and relationships. In other words, Mead's thinking indicates that a very great extension of the laboratory attitude and the method of inquiry of the laboratory is needed in school practice. Science should not be just another subject matter in an atomistic curriculum, learned from a textbook, but should be taught as a genuine experiencing of the scientific method. In Mead's view it should be seen as the application of the *only* adequate method of inquiry to *all* situations. We shall deal with this aspect of his thinking in a later chapter.

Mead's position does not seem to indicate that all reflection must take place in situations which involve other individuals. His view does not imply that the socialized schoolroom activity is the only one that can lead to cognitive meanings. When the intellectual habit of taking the role of others and, later, of physical objects is accepted by an individual as a working hypothesis, then the individual can act more and more on his own in intellectual pursuits. But Mead indicates that the social situation is basic and presumably even at the highest stage of intellectual advancement, the give and take of competent minds is essential to the full exploitation of the individual's reflective abilities.

MEAD'S BEHAVIORISTIC EXPLANATION OF UNIVERSALITY

As Mead sees it, a theory of meaning is not complete without an account of universals. "Our experience does recognize or find that which is typical, and this is as essential for an adequate theory of meaning as is the element of particularity." (69:82) Responses are made not only to the particular, or individual, or exceptional event, but also to whole classes or types of events which have a common or universal quality. We respond to the general, abstract characters of objects as well as

to their "passing" and "sensuous elements." ". . . It is this meaning or universal character with which a behavioristic psychology is supposed to have difficulty in dealing." (69:82) Mead considers that his behaviorism is adequate to provide for these universal aspects of experience.

In his treatment two distinguishable but not separate dimensions or aspects of universality are apparent. First, there are meanings or significances which are identical throughout a series of particular stimuli. This aspect of universality Mead finds provided for in his concept of the attitude. Second, meanings are universal in that they are common to the perspectives of several individuals; meanings are objective or socially universal. We shall deal with these two aspects of universality in this order.

Mead implies that it is only an oversimplified behaviorism such as Watson's that has difficulty with explaining universals. "What the central nervous system presents is not simply a set of automatisms" (69:83), or fixed reactions to particular stimuli, but a means for recognizing a kind of object that is presented by various stimuli. Mead uses as an example the behavior of one who is driving a nail and, lacking a hammer, recognizes in a stone, or brick, or anything having weight enough to serve the purpose, something to hammer with.

I see no reason why one should not find, then, in the organization of the attitude as presented in the central nervous system, what it is we refer to as the meaning of the object, that which is universal. The answering of the responses to an indefinite number of stimuli which vary from each other is something that gives us the relation of the universal to the particular. . . . (69:87)

In Mead's behaviorism we do not merely experience discrete events, but we recognize those which are typical, those to which a common response can be made. In our acts we do not make novel adjustments to every particular element of our field, but we recognize a commonality in groups of experiences and react to any particular event in a common pattern. There are significances that are identical throughout a whole group of particulars. A brick, a stone, a heel of a shoe, or a hammer all call

out a typical response of something to hammer with. This common response to a group of different stimuli is, in Mead's view, one aspect of the behavioristic explanation of universals.

According to Mead's view ". . . this universality . . . attaches in a certain sense to a habitual response in contrast to the particular stimuli which elicit this response." (69:125) In our habitual attitudes we respond to a great many things as something to pound with. When we respond to a particular object in a customary way, it is what Mead refers to as an instance of the universal or the generally accepted way of acting. These habitual attitudes answer to what we call universality. "I think we can recognize in any habit that which answers to different stimuli; the response is universal and the stimulus is particular." (69:85) In the response to a *type* of object we are responding to the use or function to which that object may be put. The universal is then a response which is made to an event as representative of a group of events. The universal appears in a situation when an attentive organism selects an event, isolates it through the significant symbol, and responds to its functional meaning in the situation. The heel of the shoe is recognized, not as a part of something to walk on, but as a something-to-hammer-with type of object, and the perception of this function is what we refer to in the concept of universality.

In the second or social dimension of universality, Mead deals with universals in terms of communication. As we have seen, he identifies cognitive meanings with an experience which is indicated to the self when it is indicated to others. When using a significant symbol, the individual tends to make a response which is identical with that of the other to whom the symbol is addressed, and we can say that there is a common or universal meaning.

Our symbols are all universal. You cannot say anything that is absolutely particular; anything you say that has any meaning at all is universal. You are saying something that calls out a specific response in anybody else provided that the symbol exists for him in his experiences as it does for you. . . . Thinking always implies

a symbol which will call out the same response in another that it calls out in the thinker. Such a symbol is a universal of discourse; it is universal in its character. . . . a person who is saying something is saying to himself what he says to others; otherwise he does not know what he is talking about. (69:146-7)

In other words, according to Mead's view the universality of meaning consists of the development of common responses to varying individual objects and the development of a language which indicates these common functions. The significant symbol isolates the common responses which individuals make to the same stimulus. It brings together several perspectives into a common attitude. Thus, "thinking proceeds in terms of or by means of universals." (69:146n)

We shall deal in detail with Mead's conception of the relationship between individual and society in the next chapter, but are indicating here that, in his view, the cognitive character of universality arises out of the taking of the attitude of the other. In thinking, one takes the attitude of the other toward a common stimulus and if this be extended through the community of others, one takes the attitude of "the generalized other." "In so far as the individual takes the attitude of the generalized other toward the object there emerges an object that is universal." (71:275) When one points out a meaning by means of a symbol, one is indicating what can potentially become an identical meaning to all others. By repeating and generalizing the role-taking process, the individual arrives at broader degrees of social universality. In the taking of community attitudes the individual is dealing with socially common meanings. These community responses that are taken over by the individual and make possible concerted or generalized ways of responding to particulars are to Mead "the sole source of the universal." (54:162) A universal is thus an "amalgamated" (*Ibid.*) attitude of the community of others which the individual possesses through linguistic communication.

Because Mead's concept of universality has this social dimension, there are greater and lesser degrees of universality.

" . . . There may be what are called more inclusive and less inclusive universals." (71:371) Certain acts, such as those of the research scientist, involve a much greater degree of common agreement than others, such as those of the artist, in which commonality of response is at a minimum. As we have shown in the first chapter, Mead deals with objectivity in scientific methodology as the ability of others to carry through the same experience as that of the scientist and arrive at the same meanings. Objectivity, thus defined, is another term for universality.

Mead's conception of the universal is one that he finds operative in the procedure of the research scientist.

Now, there is nothing so social as science, nothing so universal. Nothing so rigorously oversteps the points that separate man from man and groups from groups as does science. There cannot be any narrow provincialism or patriotism in science. Scientific method makes that impossible. Science is inevitably a universal discipline which takes in all we think. It speaks with the voice of all rational beings. It must be true everywhere, otherwise it is not scientific. (70:168)

As we have noted, Mead saw that the scientist starts out with an existing law and looks for exceptions to that currently accepted belief. The existing belief, or law, or statement of uniformities and probabilities is a universal. It expresses what has been repeatedly observed in many instances. When an exception is observed, the universal is reconstructed to include that exception as an instance of the new universal. Thus " . . . science deals with hypothetical universals" (70:267); hypothetical, because subject to revision by the appearance of new events; universal, because observed in many instances and confirmed by other scientists.

Mead distinguishes his view of universality from the Aristotelian conception, and all positions which make universality a realm apart from and prior to human experience. As we have seen in the first chapter, the procedure of early or Aristotelian science was to start with a general definition or dogma which was not to be touched. Scientific laws or universals were eter-

nally created, immutable principles of reality which man apprehends in the forms of particulars, and there was no provision for the reconstruction of existing belief by the observation of the individual event. We are not here interested in following out this view of universals as the essence which pervades the particular but want to point out that in this early conception “. . . universality ironed out or eliminated all that was peculiar to the experience of the individual.” (71:513) As we have seen, Mead holds that this does not answer to the procedure of the research scientist. In his view universality does not consist in sloughing off as accidental the recalcitrant event or characteristic which does not fit in with the pre-established conception. Universals are not given once and for all but are reconstructed in the process of inquiry. Mead's view is an alternative to the whole tradition of a priori universality.

Mead shows that his view likewise is not that of the realist, and apparently he means any type of modern philosophical realism. “Must we assume a realm of such entities, essences or subsistents, to account for our thinking? That is generally assumed by modern realists.” (69:88) He reminds us that “The realists assume that knowledge is just a relationship between the object and the mind.” (70:342) But there are different sorts of objects; some that occupy a certain place at a certain time and some, the universals, that are thought about but do not occupy space and time. The realists, in order to account for our thinking about these universals, assume that they make up a realm apart from the particulars that are in space and time. For example,

. . . Whitehead refers to them as eternal objects. Another group, the so-called “critical realists”—Santayana, Lovejoy, and others—refer to them as “essences.” And the question of the appearances of these essences, these universals, in the object and the presence of them in the mind becomes a somewhat difficult question. (70:343)

Mead holds that the scientist is not at all interested in these essences and in the problem of how they become objects of knowledge. (71:28) In his view the universal meaning arises

in the common way of treating a number of particular events or objects.

Thus in Mead's view, thinking takes place in terms of universals or meanings which characterize objects in their interactions with reflective individuals. He points out that when we think of a spade, we do not think of any particular spade, but of something that transcends the particular which is limited to space and time. The universal spade is not limited by the spades that come into being and are worn out. It is eternal, not in the sense that it resides in a world apart from our actual experience but in the sense that all who talk and think have an identity of response to the object, or word, spade. This is not to say that the meaning or universal lies in the symbol, spade; it is not to take the nominalistic position. In Mead's view the meaning or universal spade emerges, just as food objects, or the so-called secondary qualities of objects, arise when an organism appears that can deal with them and so provide the conditions of their emergence. The object is taken up into a universal way of response to it or a universal belief about it through the emergence of the individual who can deal symbolically with it.

In accounting for universals in terms of the response which may be made to various stimuli and in terms of socially common meanings, Mead provides for the permanent, stable, and typical aspects of experience. Some have felt that such a behavioristic and pragmatic orientation as Mead's could not do justice to the abiding stable aspects of human experience. This feeling has led to the belief that pragmatism, in depriving man of his cosmic significance as a partial reproduction of the Absolute in which our universals are finally secure, does not leave room for convictions which are worthy of human effort. An account of universals based solely on empirically observed human behavior is, it is held, emotionally unsatisfactory and does not provide for forceful moral action.

In Mead's position the universal as a socially common significance describes the constancies that characterize human activity. To him meanings are not universals because of their

participation in an absolute realm, but because they have been repeatedly tried and verified in man's experience. The efficacy of the experimental method, for instance, is one of the basic convictions of Mead's belief because of its universal value in all inquiry. Mead's view seems to be that conduct as exemplified in the scientist's procedure has its convictions, and though it may demand a courage which more tender-minded views do not require, it is the sole basis for fruitful moral action.

Educational Implications

As we shall see in greater detail in another connection, there is a tendency in current educational philosophy to assume that the pragmatic approach justifies throwing aside all established principles, and even all existing subject matter, for the sake of improvising according to the immediate needs of the child. Mead's position would not seem to imply that education should center exclusively about these immediate needs but rather that there are some relative universals which should be recognized as common to the experience of all and therefore deserving of a place in a curriculum designed for all students. Such a view does not mean overlooking individual differences, but it does mean that there are common experiences which are as important as variations between individuals, and in some respects perhaps more important.

Mead's rejection of a realm apart from human experience in which our universals finally rest does not include a denial of the stableness that characterizes our world. Mead does not admit that the precarious exists on the same level as the stable. In fact, he criticizes Dewey for this implication. (71:651) In Mead's conception, the stable and the abiding is the higher level—not because it is removed from the natural into a superior region but because man's distinctive trait is the ability to deal with universals that take up particular instances into a more meaningful system of relationships. To look for any other stability and permanence in human affairs than this operation of emergent mind as it deals with universals is, according to Mead's position, an unfruitful quest.

Mead's behaviorism indicates that education, though it cannot deal with universals in the absolutistic sense, can and should recognize the social nature of the relatively universal. These generally accepted principles are to be dealt with as leading principles which have been confirmed in experience. They are guiding generalizations of action which have stood the rigorous tests of experimental inquiry and, though still hypothetical, are for the most part practical absolutes. An education, founded on a recognition of social universals, would not be free from our heritage of these leading principles and acquired knowledge but would stress their function in the emergence of the self-conscious individual. In Mead's conception this seems the appropriate counterpart of an education that recognizes pupils' needs.

Not only does Mead's view of the social nature of universality imply that education should not remain aloof from the conditions of the social field within which it functions, but it also implies a different view of education than that which is involved in the current revival of the scholastic philosophy. If universals are derived from the empirical testing of experiences by many competent inquirers over a long period of time, the universal truths with which we deal are not a priori truths, to be respected because of their absolute certainty which is unrelated to human endeavor. The notion of divinely established truth contained in the classic tradition has provided a final resting place for man's endeavors. It is taken as the goal of growth. Though difficult to attain, once reached it is the end-all of inquiry.

Mead's concept of universals, on the other hand, follows James's notion of a universe with the lid off. Mead's position does not envisage a rational structure of the world which antedates man's reflective inquiry and is discovered in the repetition of these superhuman universals by man's reflective intelligence. Universals, in Mead's view, are recognized as human creations which take account of the enduring traits of the real world but are subject to growth and change. As we have seen in the first chapter, Mead regards the most universal law of

science, the uniformity of nature, as hypothetical. Though education deals with the universal aspects of experience, these are not passed on as dogmas but as working hypotheses. Growth occurs in the rediscovery by the individual of the value of the universal or in the reconstruction of the universal. In either case growth is not limited by extra-experiential, absolute truths and its outcome is not secured prior to the act of inquiry. Mead's view of universality thus serves human interests and efforts rather than curtails them.

THE FIELD OF INDIVIDUAL MIND

The significance of Mead's emphasis upon the cooperative nature of mental behavior is that mind is a characteristic of a situation, of the relationships between man and his environment.

Nature is intelligent in the sense that there are certain responses of nature toward our action which we can present and which we can reply to, and which become different when we have replied. It is a change we then can answer to, and we finally reach a point at which we can co-operate with nature. (69:185)

As the writer understands it, this is not gross pan-psychism in which all nature is charged with mind but is a recognition that mind relates to a situation in which some things are indicative of others and where a change in the relations of physical things calls out an appropriate change in the behavior of the organism. In other words, mind pertains to the interaction of organism and things in the environment when those things become objects, when they tell something about the situation.

Mind, then, in Mead's view, can no more be located within the individual than can behavior take place wholly within the organism.

. . . The field or locus of any given individual mind must extend as far as the social activity or apparatus of social relations which constitutes it extends; and hence that field cannot be bounded by the skin of the individual organism to which it belongs. (69:223n)

To Mead, the opening of possible courses of action appears as a process carried on as much by an environmental field as by an

individual. First of all man deals with a social environment, which permits the individual to build up a way of acting so that he may cooperate with others through the use of the significant symbol. Later, ways of acting are suggested by a physical environment. The individual is able to discriminate ways of acting in the light of the promises made by physical objects. Mind is conduct governed by consequences which are signalized by objects in the field. Intelligent choice, the obtaining of desired consequences and the avoidance of undesired ones, is made possible by a field that indicates to an organism that uses symbols what is involved in the objects of that field.

To Mead, mind, understood as functional, in the two main meanings of the term, is literally a characteristic of the environment, located in the objective world.

Mind is then a field that is not confined to the individual much less located in a brain. Significance belongs to things in their relationships to individuals. It does not lie in mental processes which are enclosed within individuals. (54:163)

Mentality is not an individual's inner possession characterized by its nebulous nature, but a characteristic of an act, and is located in the relationship between organism and environment.

Educational Implications

To release mind from the fetters of something going on exclusively within the skin of the individual and to view the mental as a mode of interaction between an organism and its environment when that interaction is implemented by language is to suggest far-reaching consequences for contemporary education.

For instance, the presupposition that mind is an endowment of every individual at birth and that it gradually develops or blossoms into the manifestation of what is already present has led to conflicting educational assumptions. The mind is frequently referred to as something that is adverse to learning and in need of discipline to attain its proper form. This idea leads to the notion of formal discipline. And there is another

assumption growing out of the same individualistic presupposition, namely, that mind is so given that it should be allowed to unfurl without interference, restraint, or direction into the fully developed rational individual. Such a view is shown in Rousseau's *Emile*. Mead's view renders artificial this problem of the nature of the endowed mind, which today takes the form of the conflict between traditional and progressive education. The presupposition in both positions is false according to Mead's theory of mind. The individual is neither adverse to learning nor the possessor of a dormant mind. He is equipped with a physiological inheritance making possible the development of language communication which is concomitant with the development of reflective behavior. Education's task in cultivating intelligence is that of developing meanings in the light of which conduct can be controlled by the anticipation of consequences. Discipline is the ability to accept the consequences of one's act. Freedom is the opportunity to develop the consequences of the act. Both are essential to the growth of reflective behavior.

The individualistic presupposition is also apparent in the educational problem of interest and effort. Interest is frequently taken to be a mental possession, a state of mind which a teacher can cultivate in a pupil. Effort likewise is considered an inner compulsion which a rigorous education inculcates in the mind. Both are subjective states of the private consciousness. If we follow Mead's view, interest and effort would inhere in activities involving envioning fields rather than in the privacy of one's mind. Objects in their relationships with individuals possess interest and demand effort. Some events or aspects of our envioning field are sorted out by the individual as worth attention and reflection while others are not. Education's task is to refine our sensitivity and promote those types of environments in which intelligence is demanded rather than to concentrate on the development of general states of mind.

Mead's point of view also indicates that those who favor an educational situation in which the pupil is divorced from the

affairs of his social, political, and economic environment are operating with the individualistic presupposition concerning the nature of mind. Many educators have come to believe that the academic ideal of a school segregated from the conditions of the community has tended to create an individual unable to deal adequately with the problems of our adult world. A distinct effort is being made in many of our modern schools to direct learning activities so that they will occur in surroundings more closely identical with the non-academic world in which pupils will have to live. Recently, however, there have been criticisms of this progressive movement and attempts to re-establish a classic curriculum in which immediate factors of time and space have no important place.

If we follow Mead's belief that mind is the relationship between the events of an environment and the human individual and is not an exclusive personal possession within the body of the individual, it seems clear that the development of an intelligent citizenry takes place through attention to the environment as well as the development of the individual. In such a view we do not first develop our minds and then apply that rational power to the affairs around us. The development of reflection *is* the development of an environment that has certain relationships with individuals. Mead's thought would seem to indicate that such a view as "the child-centered school" is a very misleading educational doctrine. He apparently would prefer an environment-centered school, or at least an educational philosophy which did not seem to center so exclusively about something that goes on totally within an individual.

If mentality exists in a situation and is then taken over by an individual, the effort of the school would seem to be to bring to the individual an increasingly broader and more complex environment in which his growth can occur in terms of his relationships with his field. Education's responsibility seems to be to lead the individual into deeper and more thorough-going interrelationships with the complex environments of modern life. Instead of being shut off from the conditions of his society, the

pupil would be encouraged to reach out into those conditions for his intellectual interests.

Mead's hypothesis that mind is a characteristic of an act and occurs in the interactions between organism and environment also suggests a view of the nature of habit and habit formation which is of value for education. The traditional view seems to be that a habit is an inner possession of the individual which becomes operative under certain appropriate stimuli. The extreme behaviorist also evidences an individualistic view in regarding habits as rigid response patterns stamped into the central nervous system. Mead's view suggests that a habit is not something contained within the nervous system or totally within the skin of the individual. A habit is a patterned act and not a psychical possession of the individual. It is a particular kind of relationship existing between the agent and the field of which the agent is a part. Instead of seeing habits as inner, individual possessions, Mead's view suggests that they are acts which are unimpeded in their coordinated progress toward the satisfaction of needs, acts which the organism tends to repeat without the hesitation which reflection involves.

The educational implication of Mead's view of habit as an affair of the environment as well as of the individual is that desirable habits are not formed by segregating the individual from his field. The school will not develop good habits by isolating itself from the immediate problems of the community. Habits developed under such conditions are artificial; they will not be serviceable in the conditions of social, political, and economic life. It is Mead's view that as long as the social field of community life is neglected and the individual is educated as though he had no important and vital connection with his community, the habits created will be mis-educative, will be habits of restricted ways of acting rather than habits of growth toward new and better ways of living.

SUMMARY

In Mead's analysis the significant symbol marks the emergence of cognitive meanings, for it makes possible the indica-

tion to one's self of the response which one's gesture calls out in others. Meanings are symbolized, isolated from their context, analyzed and recombined so that behavior takes on new directions. Because, through the significant symbol, one can take the attitude of the other toward the common referent, one can take the attitude of physical things and deal with non-social objects in terms of their responses. Similarly, the significant symbol may signify the common response to a group of events, and this patterned response to many individual events provides a behavioristic approach to the nature of universals. This habitual response to a multitude of stimuli is communicable, and the second dimension of universality is thus the community response to varying individual objects. Mead is thus able to take care of those aspects of human conduct which the radical behaviorist denied and achieves a view of mind as that interaction of the human organism and his field when things become objects through the emergence of the significant symbol.

CHAPTER V

The Individual and Society

The Emergence of the Self.—The Historical Background of the Subject-Object Relationship.—The Generalized Other.—Play and the Game.—The Two Aspects of Individuality.—Institutions and the Individual.—Some Educational Implications.—Summary.

THE EMERGENCE OF THE SELF

IN Mead's position the emergence of mind cannot be separated from the emergence of the self. To him, mind and self are more than correlative terms; it is the emergence of the minded self that is the distinguishing trait of human conduct. Just as the behavior which we call mental emerges out of a prior, non-mental, gestural activity, so what we distinguish as the self arises in the same process. Mind is not given in advance to explain the social process, nor is the self a datum. The minded self is to be described as a development within the bio-social rather than assumed as present from birth. It is Mead's belief that only such a position gives a confirmable description of man's conduct as an emergent that is continuous with non-human behavior.

Mead sees that his view of individuality as something that develops in the process of cooperative activities and his notion of society as the precondition of individuality replaces an earlier view of the nature of the self and its relationship to society, a view which we have inherited mainly from Locke and Rousseau. This is, of course, the social contract theory. Mead holds that the contract theory "as held in the past by both rationalists and empiricists" (69:222) committed them to "the interpretation of experience in terms of the individual." (69:222n)

. . . The contract theory of society assumes that the individuals are first all there as intelligent individuals, as selves, and that these

individuals get together and form society. On this view societies have arisen like business corporations, by the deliberate coming-together of a group of investors, who elect their officers and constitute themselves a society. The individuals come first and the societies arise out of the mastery of certain individuals. The theory is an old one and in some of its phases is still current. If, however, the position to which I have been referring is a correct one, if the individual reaches his self only through communication with others, only through the elaboration of social processes by means of significant communication, then the self could not antedate the social organism. The latter would have to be there first. (69:233)

In Mead's view this presupposition involved in the social contract theory puts the cart before the horse. Selves are not discrete, given entities that get together and form societies. They emerge through their social conditions. A theory of individuality and society, if it be formulated in the light of the best scientific knowledge that we have, particularly the evolutionary hypothesis, should not rest upon the presupposition of minded selves as a prior condition to cooperative behavior but should explain how selves arise in the social process.

As we have seen in the preceding chapter, the heart of Mead's position is that:

. . . conscious communication develops out of unconscious communication within the social process; conversation in terms of significant gestures out of conversation in terms of non-significant gestures; and the development in such fashion of conscious communication is coincident with the development of minds and selves within the social process. (69:179n)

The conversation of significant symbols involves a reference to the self as well as to others; the individual is pointing out something to himself at the same time that he is indicating it to another. The significant symbol enables the gesturer to perceive the effect of his speech upon another and so to take the attitude of the other toward his own gesture. In this development of mind, or meaning, or self-consciousness the individual comes back upon himself as an object of knowledge as well as an agent that is satisfying his needs. He becomes conscious of himself in terms of the attitudes of others which he takes over.

Thus, in Mead's view, "The self has the characteristic that it is an object to itself. . . ." (69:136) The individual, through the operation of language, is able to accept his speech as others do and to tend to respond as others do to his own significant gesture. By taking the attitude of the other toward himself he is able to see himself as others see him, to discover himself as an object. Through the repetition of this role-taking process the individual is able to take the various attitudes of others toward himself and so build up through the organization of these social attitudes a view of himself as this-kind-of-object.

When the response of the other becomes an essential part in the experience or conduct of the individual; when taking the attitude of the other becomes an essential part in his behavior—then the individual appears in his own experience as a self; and until this happens he does not appear as a self. (69:195)

The self is thus literally built up of the attitudes which others take toward the acts of the individual. The complications and involvements of this process are our concern in this chapter.

According to Mead's hypothesis, language communication is the only means whereby one can take the attitude of others toward himself and thus become an object to himself.

Any gesture by which the individual can himself be affected as others are affected, and which therefore tends to call out in him a response as it would call it out in another, will serve as a mechanism for the construction of a self. That, however, a consciousness of a self as an object would ever have arisen in man if he had not had the mechanism of talking to himself, I think there is every reason to doubt. (39:405)

Non-human animals do not have selves because communication at that level does not involve significant symbols. The co-operative act of the lower animals is not based upon the taking of the attitude of the other individual and thus arriving at one's own act in the light of the functions and attitudes of others. Animal societies are based upon physiological differences rather than upon functional differentiation obtained through communication.

Mead observes very complex social organizations existing in

the lower animal levels, particularly the insects, but these do not grow out of their ability to communicate but rather from their physiological differentiations.

The socialized human animal takes the attitude of the other toward himself and toward any given social situation in which he and other individuals may happen to be placed or implicated; and he thus identifies himself with the other in that given situation, responding implicitly as the other does or would respond explicitly, and governing his own explicit reaction accordingly. The socialized non-human animal, on the other hand, does not take the attitude of the other toward himself and toward the given social situation in which they are both involved because he is physiologically incapable of doing so; and hence, also, he cannot adjustively and co-operatively control his own explicit response to the given social situation in terms of an awareness of that attitude of the other, as the socialized human animal can.

All communication, all conversation of gestures, among the lower animals, and even among the members of the more highly developed insect societies, is presumably unconscious [i.e., unpremeditated]. Hence, it is only in human society—only within the peculiarly complex context of social relations and interactions which the human central nervous system makes physiologically possible—that minds arise or can arise; and thus also human beings are evidently the only biological organisms which are or can be self-conscious or possessed of selves. (69:235n)

Mead's hypothesis is that the physiological differentiation which is the basis for the interaction of animal forms does not make possible the kind of functional plasticity which characterizes human social acts. The social adjustments of the non-human animal may be highly developed and very complex social acts may take place, but the individuals do not see their place in the community life by taking the role of the others. In animal societies structural differences determine the social role of the form. Although Mead provides for individual differences, native as well as acquired, he sees that in human societies physiological structures are practically identical and that social roles are determined by the communication which enables the individual to perform his acts in relationship to those of others.

. . . In such organizations as the beehive . . . a complex social development is possible, but dependent still upon physiological differentiation. We have no evidence of the accruing of an experience which is passed on by means of communication from one generation to another. . . . (69:232)

Thus, though the lower animal forms may be well adjusted to their various functions, there is not the complexity of social life that results from language communication.

Mead sees in the social organization of the family a physiological differentiation that is basic in both human and non-human social patterns. But, he says:

. . . you could not make up a human society out of the family as it exists in forms lower than man; you could not make up human society out of a herd. To suggest this would be to leave out of account the fundamental organization of human society about a self or selves. (69:240)

When the concept of the self is added to the more elementary relationship of the family, the conditions for a distinctively human society are complete. The fundamental feature of human society is that it is a society of selves, and the development of the self is made possible by the process of role-taking whereby the individual comes to see himself as an object.

THE HISTORICAL BACKGROUND OF THE SUBJECT-OBJECT RELATIONSHIP

According to Mead's analysis, the reflexive mode of the self, in which one comes back upon himself as an object, was discovered by the romantic idealists. Mead saw the romantic period as a result of the era of the French Revolution. The Revolution was an attempt to build a social order founded on human nature rather than to accept the older order based on the arbitrary authority of the Church as expressed in its dogmas. The essential nature and rights of man were to be used as the basis of government. In Mead's view, the Revolution was the practical application of the movement represented by Hobbes, Locke, Rousseau, and Kant, all of whom attempted to get away from the dogma that human social affairs are pre-

ordained in the rational structure of the universe and who tried to find in the nature of man those universals which order human affairs. But the French Revolution was a failure; it resulted in the period of Napoleon, whose state was not built upon Rousseau's conception, but was an effort to go back to the old established order. The reactionary period following the Revolution was, as Mead sees it, an effort to turn back the clock.

Mead's view is that in the process of trying to go back to the old order of things, Europe found that it could not achieve such a reversal because men had been through too much. They saw it differently, and hence approached the old with a new self. In trying to go back, the romanticists found that a different self was involved. In their inability to return to the old, Mead believes that they discovered the mechanism whereby selfhood is achieved. They found themselves assuming the role of the other, seeing themselves as another views them. The romanticists found the reflexive mode in which they became both subject and object in the same experience. They found the mechanism whereby selves arise in society. By taking the role of the other the self is secured as an object of knowledge as well as a subject, and Mead believes that it was the romanticists who first "got the feel" of this reflexive nature of selfhood.

In Mead's view, what the romantic idealists did was to set up a method of achieving selfhood in various ways. Fichte had the self discovered in one's identifying oneself with one's duty, which, when done, achieved the self. In Schelling the artist discovered himself in the object which he created. Hegel found the subject-object relationship of the self in the nature of the thought process, where the synthesis is a higher expression of the self. (70:Chaps. 1-4)

Mead generalizes the method of self-achievement to an even greater degree than the romanticists, and finds the individual entering the subject-object relationship whenever he uses a language that enables him to take the role of another and see himself as others see him.

THE GENERALIZED OTHER

However, the taking of the attitudes of other individuals gives rise to only a partially developed self, as Mead sees it. Just as an explanation of meaning requires that the universal or generalized response to particular stimuli be taken care of, so an account of the self-conscious self demands an explanation of the means whereby the self takes over generalized or universal attitudes. The individual is sensitive to the socially common attitudes that are involved in community responses to him and to other situations and events, and these universal roles are also taken over by the developing self. The self is constituted not only by the attitudes of individuals but also by its perception of the universal attitudes of the community of others as a whole.

. . . There are two general stages in the full development of the self. At the first of these stages, the individual's self is constituted simply by an organization of the particular attitudes of other individuals toward himself and toward one another in the specific social acts in which he participates with them. But at the second stage in the full development of the individual's self that self is constituted not only by an organization of these particular individual attitudes, but also by an organization of the social attitudes of the generalized other or the social group as a whole to which he belongs. These social or group attitudes are brought within the individual's field of direct experience, and are included as elements in the structure or constitution of his self, in the same way that the attitudes of particular other individuals are; and the individual arrives at them, or succeeds in taking them, by means of further organizing, and then generalizing, the attitudes of particular other individuals in terms of their organized social bearings and implications. So the self reaches its full development by organizing these individual attitudes of others into the organized social or group attitudes, and by thus becoming an individual reflection of the general systematic pattern of social or group behavior in which it and the others are all involved—a pattern which enters as a whole into the individual's experience in terms of these organized group attitudes which, through the mechanism of his central nervous system, he takes toward himself, just as he takes the individual attitudes of others. (69:158)

The self is thus socially nurtured by the perceived attitudes of others, and, through the same mechanism, the human individual perceives and incorporates within his own experience the attitudes which transcend individuals and characterize communities, nations, and cultures.

Thus, as Morris points out, "Looked at from the standpoint of the act, the generalized other is the act of role-taking in its universality." (69:xxviii) Through his ability to take the attitude of the universal other, the self-conscious individual transcends the local and present attitudes with which he comes in contact and takes the attitude of any other or of the abstracted other of a widest possible community.

It is in terms of this mechanism of universals (or universally significant gestures or symbols) by means of which thinking operates, that the human individual transcends the local social group to which he immediately belongs, and that this social group accordingly (through its individual members) transcends itself, and relates itself to the whole larger context or environment of organized social relations and interactions which surrounds it and of which it is only one part. (69:269n)

In Mead's opinion, "the logician's universe of discourse lays plain the extent of universality" (69:269), for in taking the attitude of such a generalized other one takes a role that is available to anyone who uses "the symbols which carry those significations." (*Ibid.*) "The widest community in which the individual finds himself, that which is everywhere, through and for everybody, is the thought world as such." (69:201) This universal attitude is the implied goal of the process of communication, and, as we shall shortly see, involves the democratic sharing to the widest possible degree of interests, meanings, and values. Mead thus finds that his concept of taking the attitude of the generalized other implies that the ideal of democracy is involved in the full development of the self.

According to Mead's belief, the description of the attitude of the generalized other that is taken by the individual is the empirical explanation for social control. The agency of social con-

trol in the older individualistic view of the minded self apparently was an inborn sense of right and wrong in each individual which was called "conscience." This inner psychical state was responsible for the control of the individual's act. That the conscience was not socially constituted is indicated in the belief that one's conscience should be one's guide and the opinions of others should not be unduly influential. The implication is that the inner voice gives an absolute sort of advice which transcends the mores of the community. Mead's explanation is the reverse of this view. Conscience is the voice of the generalized other, the attitude of the community toward the self, which enables the individual to see the appropriateness of his act in the light of the community mores or attitudes. The self takes over the expectancies of the community and directs his attitudes with a view to what others will think of him. Through the social nature of self-consciousness the individual can criticize himself in the light of the attitude of the generalized other. Social control operates through the individual's taking the attitude of the generalized other toward himself and bringing himself into relationship with that community attitude. That this is not entirely a one-way process, that the individual also does something to the social process by which he is controlled, we shall see in the following pages.

It seems to the writer that Mead does not exploit his concept of the generalized other to the fullest extent. He might have pointed out that in the cultural conditioning of the individual there are competing generalized others with which the individual has to deal. There is, for instance, the generalized attitude that we should love our neighbor as ourself and act toward him with Christian charity, and there is the conflicting social and economic attitude of competitive individualism where one watches out for his own status and his own possessions and the devil takes the hindmost. There are all sorts of abstract generalized attitudes in our culture which are in conflict, and which the growing individual takes over from his culture. He has to make some kind of an adjustment to them, and it frequently happens that he compartmentalizes these

conflicting attitudes and calls forth one or the other on demand according to his immediate inclination. The resulting disintegration of personality is most readily seen when the compartmentalization breaks down.

The educational consequences of a recognition of these conflicting generalized others is apparent. As long as we maintain the customary mores in their existing form, education can hardly promote the growth of integrated individuality. What the educator should do, if he is to educate adequately, is to bring the conflicting cultural attitudes into the open so that their consequences can be symbolically dealt with. This clearly means that the educator is much more than the carrier of the cultural attitudes, that he selects, interprets, and criticizes the social patterns of his times. The position of the educator in the development of integrated selves thus involves him in the reconstruction of community attitudes.

PLAY AND THE GAME

Mead points out that the two general stages in the development of the self are exemplified in the two attitudes of children characterized by play and the game. The early aspect of role-taking that we observe in children is that of play, which Mead distinguishes from mere imitation. The child plays at being various individuals, at being all sorts of things, in numerous situations in rapid succession. The child plays at being a mother, at using a telephone, at being his playmates and play-things and carrying on conversations with them, and these varying roles follow upon one another without appreciable integration of attitudes. What the child is doing is developing a self through the taking of the attitudes of others. The protracted period of infancy in the human gives a longer period in which the role-taking prevails. The development of speech mechanisms enables the child to stimulate himself in these play activities, and out of this condition, which other organisms, as we have seen, do not have, there gradually develops the integrated self of self-consciousness.

Mead sees that in the more elaborate situation of the game

there is an organization which is not present in ordinary play. The different roles which the child takes in the organized game have a relationship to one another which we do not observe in play. Mead points out that in a baseball game the child must ". . . have the responses of each position involved in his own position. He must know what everyone else is going to do in order to carry out his own play. He has to take all of these roles." (69:151) In other words, the child has to begin to develop an attitude in which he is everyone else on his team, a generalized other, in terms of which he sees his own place. The social act of the ball game as a whole has to be brought within his experience so that as a member of the group, the child can take the general attitude toward the cooperative activity and find his role in it. In the more advanced games and game-like activities of later periods of life the same process of the development of the self is involved. Teamwork, for instance, is a term that we can apply to many life situations in which a self is developed and expressed in a cooperative enterprise.

The educational consequences involved in Mead's analysis of the two stages of selfhood are apparent in his treatment of play and the game. Play is not a haphazard thing in which children indulge to escape ennui. It is not a meaningless pastime. Nor is it the mere imitation of others. Play is rather the earliest stage at which the child begins to develop individuality. It is the way in which the child develops a self and a mind. The child is not merely imitating others; he is taking the attitude of others in an elementary way. Much of the mischief which is so bothersome in the developing infant results from his taking the role of the other in an imperfect way. That education is becoming increasingly cognizant of the importance of play in the development of the self is apparent in the increasing attention given to the play school.

When the physiological development of the child is such that play develops into the game, the task of education is to foster that more complex sort of activity. This means that play will not continue to be the pattern of educational activity throughout school life, as is sometimes the tendency in some contem-

porary educational programs. The development of the self that is represented in the game involves a spread of organized role-taking. The immediacy of the play situation becomes a more delayed act in which a universal, the development of an attitude of the generalized other, is involved. The degree of immediacy involved in many educational projects today prevents the greater coordination of selfhood and the integration of attitudes which the more fully developed individuality involves. (See also page 102.)

The organization of attitudes in the game also points the way to a view of responsibility which has educational value. If we are to encourage the growth of responsible individuals, we must see to it that they engage in social activities which involve the attitude of the generalized other. Education should provide conditions and stimuli for cooperative undertakings where individuals can assume the attitudes of groups and communities and see their own responsible attitudes in their social relationships. The extent to which an educational program divorced from social conditions of time and place can foster this socially responsible individual is questionable. Mead's suggestion would be that it is just these social relationships brought into the individual through the mechanism which play and the game indicate that create responsible citizenship.

Similarly, a view of discipline is involved in Mead's account of the growth of the self. Discipline would not seem to be the ordering of a refractory self into a pattern of behavior in which one accepts upon unquestioned authority the demands of an established order. Nor is discipline the ordering of mental faculties into a rigid, logical framework as is the view of those who hold that the classics provide us with the standards to which we should conform. Rather, discipline means the ability of the individual to understand his role in cooperative affairs in terms of the various others and the generalized other. It means a living up to the rules of the game, and an acceptance of the consequences of failing to adopt the attitude of the others in determining one's own act. This point of view would

seem to involve an extension of discipline in school affairs to the point of compelling an individual to accept the responsibility for the consequences of his act, rather than the dismissal of discipline from educative acts. The self-disciplined individual is one who controls his acts in the light of the attitude of the group.

THE TWO ASPECTS OF INDIVIDUALITY

To Mead the self is not merely the importation of an organization of social attitudes. It is also a response to such an organized set of attitudes from the particular perspective in place and time that the individual occupies. The distinction between the social importation and the response of the individual to that generalized other is the distinction between the "I" and the "me" of the self. The attitude of the whole community toward the individual, which is assumed by the self, constitutes the "me." The response of the individual to the importation of the community mores constitutes the "I."

In his use of the "I" and the "me," Mead has taken over and made use of a concept from William James. James discriminated two aspects of the self: the me, the self as known, as object, the "empirical ego," and the I, the self as knower, as subject, the "pure ego."¹ Mead makes use of the subject-object relationship in the self by showing how the " . . . 'I' reacts to the self which arises through the taking of the attitudes of others. Through taking those attitudes we have introduced the 'me' and we react to it as an 'I.' " (69:174)

According to Mead's view:

There is neither "I" nor "me" in the conversation of gestures; the whole act is not yet carried out, but the preparation takes place in this field of gesture. Now, in so far as the individual arouses in himself the attitudes of others, there arises an organized group of responses. And it is due to the individual's ability to take the attitudes of these others in so far as they can be organized that he gets self-consciousness. The taking of all of these organized sets of

¹ William James, *Psychology, Briefer Course*, p. 176. New York: Henry Holt and Company, 1892.

attitudes gives him his "me"; that is the self he is aware of. (69:175)

The response which the "I" of the self gives to the "me" involves more or less uncertainty. It is a step into the future and cannot be determined in advance. When the response to the "me" takes place, then the "I" making that response becomes a part of the past. The "I" is recognized in retrospect for we never are quick enough to catch it save when it is in the past. In other words, the "I" becomes the "me" and a new "I" arises for the succeeding responses. The "I" which responds is constantly being taken up into the "me" of the following experiences.

In this double-barrelled nature of the self Mead provides for the creative aspect of personality arising out of the social nurturing of the individual. We do not simply import the attitudes of others without responding to those attitudes. The "I" contributes freedom, initiative, originality. "The attitudes involved are gathered from the group, but the individual in whom they are organized has the opportunity of giving them an expression which perhaps has never taken place before." (69:198) The novel, the creative, the reconstructive, results from the taking of attitudes of others and responding to them from the perspective of the individual. The "I" is the assertion of the self over against the community attitudes. The creative reconstruction of the society by which the self is constituted takes place through the assertion of the "I" of the self. A fully developed personality, according to Mead's conception, involves the assertion of the "I" as well as the socially constituted "me."

The "me," in Mead's opinion, is the creature of habit and convention. (69:197) The assertion of the "I" involves an appeal from the conventions, laws, habits, or universals of a group to a new interest, a larger social universal. The individual in asserting his reaction seeks to make a difference in the generalized other. Leadership is this assertion of an individuality appealing to a wider community. When the individual is actively changing the community, the self is achieving its

fullest expression. The great men of history are those who carried out the reconstruction of society by the assertion of the "I." "To the degree that we make the community in which we live different we all have what is essential to genius, and what becomes genius when the effects are profound." (69:218)

Thus, in Mead's view, society is not a static, constant pattern that merely becomes internalized in the self, but in the growth of the self, society is also reconstructed.

Human society, we have insisted, does not merely stamp the pattern of its organized social behavior upon any one of its individual members, so that this pattern becomes likewise the pattern of the individual's self; it also, at the same time, gives him a mind, as the means or ability of consciously conversing with himself in terms of the social attitudes which constitute the structure of his self and which embody the pattern of human society's organized behavior as reflected in that structure. And his mind enables him in turn to stamp the pattern of his further developing self (further developing through his mental activity) upon the structure or organization of human society, and thus in a degree to reconstruct and modify in terms of his self the general pattern of social or group behavior in terms of which his self was originally constituted. (69:263n)

In Mead's view there is nothing contradictory in the seemingly paradoxical situation of a socially constituted self being also a self of individuality, novelty, and creativity. The individual grows from an impulsive creature who takes certain attitudes in the adjustment involved in satisfying his needs, into an individual who can import the attitudes of others by means of language. He is socially nurtured. But the mechanism for the internalization of social patterns also makes possible a perspective which is peculiar to that particular individual. It is this perspective of the individual minded self which is of such great value to society.

The two-dimensional nature of the self, which Mead calls the "I" and the "me," provides for the functioning of social control in the developing self. We have seen that the attitude of the generalized other, which the individual achieves by taking the role of all others, enables the individual to criticize himself

in the light of the community attitudes. In Mead's view, the assertion of the "I" accounts for creativity and the distinctive contribution of the individual, and the "me" asserts the control of the community.

Social control is the expression of the "me" over against the expression of the "I." It sets the limits, it gives the determination that enables the "I," so to speak, to use the "me" as the means of carrying out what is the undertaking that all are interested in. (69:210)

The "me" is the conservative tendency, the expression of the common values which the community cherishes, the universal. It is only against the control of the community that the personality can assert its role as reformer. The degree to which the self can develop is dependent upon the community, upon the nature and extent of the social control which the individual's growth demands that he incorporate within himself.

That Mead's notion of the operation of social control is a view of the role of education is obvious.

The getting of this social response into the individual constitutes the process of education which takes over the cultural media of the community in a more or less abstract way. Education is definitely the process of taking over a certain organized set of responses to one's own stimulation; and until one can respond to himself as the community responds to him, he does not genuinely belong to the community. (69:264-5)

The growth of the self which is education's task is achieved by the enlarging of the community in which the individual partakes and to which he responds. Mead, as we shall see, envisaged an international mindedness which would furnish the self its largest shared interests and common enterprises.

It is Mead's hypothesis that the conflict between the assertion of the individual's point of view, the "I," and the customary views, the "me," or the mores is the operation at the reflective level of the hostile acts of the biologic individual. The "hostile instinct . . . has the function of *assertion* of the social self when this self comes into existence in the evolution of human behavior." (52:581) The self is realized through its

sense of superiority to others and its need to assert its attitude that marks it off from the attitudes of others. Mead believes that the self can reach its full realization by other means than an attempt to lower others so that the self will attain a higher standing. (69:205) Fighting is not the only form of self-assertion, and the hostile impulse is not necessarily destructive. Mead points out that the victor does not want to annihilate his opponent but to use him for his purpose. (69:284) To Mead, what is desirable is that the hostility of self-assertion be directed toward cooperative functions. "Advance takes place in bringing to consciousness the larger social whole within which hostile attitudes pass over into self-assertions that are functional instead of destructive." (52:581) When the hostile impulse is directed toward the reconstruction of others' attitudes so that a larger social life can result, then a functional self-assertion takes place which is the way the individual and the community achieve a higher integration.

Means of intercommunication have been the great civilizing agents. The multiple social stimulation of an indefinite number of varied contacts of a vast number of individuals with each other is the fertile field out of which spring social organizations, for these make possible the larger social life that can absorb the hostilities of different groups. When this condition has been supplied there seems to be an inherent tendency in social groups to advance from the hostile attitudes of individuals and groups toward each other through rivalries, competitions, and co-operations toward a functional self-assertion which recognizes and utilizes other selves and groups of selves in the activities in which social human nature expresses itself. (52:593-4)

Mead believes that "As the field of constructive social activity widens, the operation of the hostile impulse in its instinctive form decreases." (52:601)

In this growth of the self which Mead is describing a significant part of education's task is the redirection of the hostile impulses involved in self-assertion in the direction of cooperative acts, a task which is also reconstructive of existing social arrangements. The conflict between the existing social belief

and the objecting self should lead to “. . . such a reconstruction of the situation that different and enlarged and more adequate personalities may emerge. Attention should be centered on the objective social field.” (41:379) Mead’s analysis of the dual aspect of individuality, the socially constituted self and the assertive self-conscious individual, indicates that the educational task is the integration of these two functions. Disintegration of personality and abnormalities of behavior seem to be largely the maladjustments between the “I” and the “me,” the reconstructive and the conventional. The integrated personality is the one who has achieved a harmony between his assertive “I” and the community mores of the “me.” /As we have seen, this integration depends upon that of the objective social field, and the school’s function in the development of the integrated personality means that the school is also vitally involved in the problems of social reconstruction and integration. To maintain that the school should be segregated from these social problems is to hold a view in which the growth of integrated personalities is an inner, psychical affair that is not an aspect of the development of social behavior patterns. Mead’s point, namely, that our attention should be centered on the objective social field, is most significant for contemporary education.

INSTITUTIONS AND THE INDIVIDUAL

In Mead’s view “. . . institutions are, after all, the habits of individuals in their interrelations with each other, the type of habit that is handed down from one generation to another.” (70:366) When the community habitually acts toward an individual or a situation in an organized way, there is the formation of an institution. “The institution represents a common response on the part of all members of the community to a particular situation.” (69:261) Mead uses the illustration of the policeman, the sheriff, and the prosecutor who react to the thief in their own individual roles and yet whose responses are all taken in common against the individual who does not recognize the common right to property. In so far as the criminal

has not taken on the attitude of the generalized other toward property, he has not taken on the attitude of his community institutions and has not a completely developed self. The operation of social control, as we have seen, is the taking on of the community attitude and acting in the light of the generalized social response to an individual's adjustments. Our institutions are manifestations of this social control.

It is Mead's belief that:

. . . Without social institutions of some sort, without the organized social attitudes and activities by which social institutions are constituted, there could be no fully mature individual selves or personalities at all; for the individuals involved in the general social life-process of which social institutions are organized manifestations can develop and possess fully mature selves or personalities only in so far as each one of them reflects or prehends in his individual experience these organized social attitudes and activities which social institutions embody or represent. Social institutions, like individual selves, are developments within, or particular and formalized manifestations of, the social life-process at its human evolutionary level. (69:262)

The mechanism of society that is reconstructing itself and the mechanism of the developing self are identical. In a sense, the mechanism of society is the mechanism of the minded self written large. Institutions emerge on the human level of the life-process through the taking on of common attitudes and the formalizing of habitual ways of acting. As the self is achieved by the taking on of continually broader roles in the direction of the generalized other, so the growth of institutionalized societies is achieved by the appeal to broader community interests than the interests of narrow cliques.

The process whereby institutions are enabled to arrive at their roles in the organization of society is, according to Mead's hypothesis, the process of the self interacting with the communities and institutions of organized life and in that process affecting the reintegration of those social attitudes. Through the individual's assertion of his perspective and the values which appear to him from the uniqueness of his organized attitudes, the institutions become modified and demonstrate their

flexibility. This is the basis for the distinction between progressive and conservative social institutions and patterns. Institutions:

. . . are not necessarily subversive of individuality in the individual members; and they do not necessarily represent or uphold narrow definitions of certain fixed and specific patterns of acting which in any given circumstances should characterize the behavior of all intelligent and socially responsible individuals. . . . (69:262)

In so far as institutions afford opportunity for their own reconstruction, they promote the progressive development of invaluable personality.

Mead sees that societies, like individuals, progress toward the good life as they find common interests in which they can be identified with others and in which they can be distinguished from others in the assertion of their individuality. He believes that we ought to:

. . . Find what common values lie back of the divisions and competitions. Within our communities the process of civilization is the discovery of these common ends which are the bases of social organizations. In social organization they come to mean not opposition but diverse occupations and activities. Difference of function takes the place of hostility of interest. . . . The measure of civilization is found in the intelligence and will of the community in making these common interests the means and the reason for converting diversities into social organization. (61:403)

It is in the extension of cooperative enterprises, the discovery of common interests, the turning of hostilities and oppositions into diversities of functions, and the integration of the goods and values of varying perspectives that the mechanism of warfare can be redirected into the common ends and purposes of the inclusive community.

In Mead's view what holds for the relationships between individuals also holds for the relationships between nations. "Nations, like individuals, can become objects to themselves only as they see themselves through the eyes of others." (43:604) Just as the self reaches its fullest development in the assertion of its individuality against the existing social pat-

terns, so the nation achieves and preserves its selfhood by asserting its values and its national self-consciousness. The national self has to be realized. This can come about in either of the two ways in which the individual self is realized: by hostility and warfare or by a functional relationship in which the nation sees its self-assertive place in the performance of a world-wide social function. It is only as the sense of superiority moves over into a way of changing international relationships so that each nation can find its own way of asserting itself that the hostility between national selves can become rational. Mead's position realizes that the world is at present involved in the attempt to secure the national self through uncontrolled hostility and that his view of international welfare is an ideal toward which we should move.

It is Mead's hypothesis that through the assertion of individuality, the individual appeals to increasingly wider communities. The wider and more abstract social groups into which one enters cut across the narrower lines which separate communities. The economic and religious communities include a great number of individuals, and these more universal societies greatly broaden the social relations of individuals. The widest community to which the individual can appeal is "the logical universe of discourse or (system of universally significant symbols)." (69:157-8) The response of this widest community is "the response that the world made up out of rational beings inevitably makes to our own statement." (69:195) In participation in the universe of discourse there is the potentiality of the self to participate in the social patterns of the race and of civilization, a universal society.

SOME EDUCATIONAL IMPLICATIONS

The writer believes that Mead's analysis of the self as that which is begotten by the nurture of the community and can, in turn, effect a reconstruction of social patterns through the assertion of its individual perspective is of outstanding significance in contemporary education. There is a considerable tendency within modern education to suggest that desirable curric-

ulum reform lies in the direction of throwing out all conceptions of organized subject matters. It is suggested that educators ignore our established knowledge at least as far as the learning pattern is concerned and that they concentrate instead upon the given or felt needs and interests of the child. According to this view we shall have a more desirable education if teachers will develop the immediate and natural interests of the child than if they have any preconceived notions as to just what knowledge ought to be imparted to the young.

The writer suggests that a careful examination of Mead's thinking would reconstruct this educational doctrine. From the point of view of Mead's thinking the very pertinent question is: Where does the child get his needs and interests? Are they inborn? Or does he acquire them in and through an experience conditioned by a cultural context? If the latter, are they any longer the immediate and unconditioned interests of the child, or are they part of the nurturing body of culture which constitutes the self?

To accept the belief that educators need only seize upon the interests of the child and have faith that from these the universals of our best-envisioned society will spontaneously result is to submit to chance, whim, and fortune those controls over human welfare which Mead's thinking provides. If Mead is right in his analysis of the growth of the self, if the self is not an original endowment but is achieved by the interaction of a language-using individual with his social and cultural field, an adequate educational program presumably should select, plan, and organize those cultural patterns, standards, or universals which are the basic constituents of an adequate social self. If there are certain commonly accepted interests and needs which are universal in the development of adequate personalities in a democratic society, education would seem to be responsible for seeing that they are cared for in our modern curriculum. This is not to say that we should neglect the unique individuality of selfhood or fail to take account of individual differences, but Mead's position indicates that both individuality and universality are essential conditions of education.

Education—the development of personhood—as viewed from Mead's perspective, is the process whereby the individual takes on the attitudes of the community. Through the development of the language function, the child takes the role of the other, and, later, the organized attitude of a group. The constitution of an adequate personality involves the taking over of the attitude of the community in an increasingly broader generalized other. Education is concerned not only with the taking over of the mores but also with the development in the individual of adequate social interests which will make constructive use of the differences between individuals and the assertive function of the self. If the reconstruction of social arrangements and the growth of individuality are concomitant aspects of an identical process, education's place is in the development of communication so that common interests bring together diverse perspectives.

If institutions are seen as the expression of common attitudes, the educational responsibility involved is to be sure that these universals do not become the absolute and fixed patterns of behavior which restrict the development of the self. Education should seek to encourage those institutionalized attitudes which permit the fullest kind of individual initiative. Mead's view, accordingly, means that educators must become increasingly clear about their notions of desirable social organizations, about what the tendencies and implications of social groups are, and to what extent existing and dominant social groups lead to the functional assertion of individuality. Such a view is not concerned with the problem of whether education can be separated from social controversies, but sees the pertinent problem as the encouragement of agencies which promote social interests, and the fullest development of the self and the reconstruction of our institutions in that direction.

Clearly, Mead's position indicates that teachers should constantly have in mind their responsibility in the development of individuals who will be socially significant. In addition to supplying the tools of human intelligence and the mores of the community; the schools have the responsibility of developing

an adequate "I." Such an individual would seem to be the one alive to the implications of modern life, capable of carrying out his adjustments in the light of existing universals and of reconstructing those existing beliefs in so far as he is able, and sensitive to his responsibility to further the development of common interests and functional diversities. That this is an international undertaking, leading to the reconstruction of existing national policies, Mead also indicates. Education's place in world conflict seems to involve making us increasingly alive to the type of international conduct in which the national self is realized through communicable participation in a worldwide social organization rather than through the hostility of competitive national interests.

Furthermore, Mead points out that the reconstruction of society by the growing self follows the same pattern as the act of the scientist who seeks to reconstruct existing scientific belief by his observation of the exceptional event. "The process is in its logic identical with the abandonment of the old theory with which the scientist has identified himself. . . ." (41:379) In scientific inquiry and in the process of social reconstruction the logical procedure is that of the reconstruction of existing patterns of action or belief. What experimental inquiry does is to express that which is "news," that which is peculiar to one's own biography, in such terms that any competent worker can carry on the same procedure.

It is that which gives the importance to the individual, gives him a value that cannot be stated. He has a certain preciousness which cannot be estimated. . . . Take cattle, on the other hand; one is like another. There is nothing represented in the experience of one ox that is peculiar to him. But a human individual, when he is a self, has this capacity to state and meet problems peculiar to himself. There is something that takes place in his perspective that does not occur for anybody else. Each one of us has an outlook on the universe which belongs to each one of us alone, and it appears in so far as we have in us a reflective consciousness in which life seems to be interpreted. (70:411)

The solution of the problem is marked by a reconstruction of belief which brings together the old facts, interests, or values

that were explained in the old belief and the new interests which the individual represents, and this reconstruction affects the self as well as the objective situation. The scientist "may name his new hypothesis after himself and realize his enlarged scientific personality in its triumph." (41:379) So in the social field the enlarged self results from the inadequacy of existing belief and the reconstruction of the "objective social field" to take care of the larger interests. According to Mead's interpretation, the method of science and the method of art are not two totally different and contrasting experiences. "Pragmatism holds no brief against aesthetic experience." (71:98) The artist is in a very real sense doing exactly what the scientist does. He is stating the experience of his own individuality in terms which can be taken up by the community. Although his technique is not that of the laboratory and although his method is to short-cut certain steps of the problem-solving and to elaborate certain others, this does not mean that he is doing something totally different from the acts of the creative scientist. What both the artist and the scientist do is to translate into terms to which all can respond what is peculiar to their own socially derived perspectives.

The application of Mead's thinking to the construction of the school's curriculum should clinch the argument. A school which operates on the scientific method for part of its program and on a different, entirely divorced, artistic method for another part of its curriculum is not only poorly educative but mis-educative. Individuality is not something that results from man's two natures; it is all of one piece. It is always the assertion of what is of value in the precious individual's perspective over against the accepted social patterns. This process is made possible through communication and the emergence of mind and self. The growth of the creative, responsible self takes this pattern in any field of endeavor which we want to distinguish. The distinction between these fields of endeavor does not mean that there is a split in the process of the growth of the self. To educate according to such a notion is to disintegrate a fundamentally integrative process.

Individuality, if we follow Mead's analysis, means the response to the world from the standpoint of the individual. Whether this takes place through artistic or scientific experience, it is the "I" of the self being asserted against the organized other of the "me." Self-consciousness arises in taking the attitude of the group, approving or disapproving of the community attitude, and reconstructing the group attitude from the perspective of the individual. Education is the implementation of this process. For education to move ahead intelligently it needs attention to those activities which make for a socially constituted self who can assert the values of his own perspective and reconstruct his social group in asserting his personality. Education is not the mere passing on of a cultural heritage, the mere creation of a "me." It is the fostering of individuals who will be responsible recreators of social patterns. It is the creation of personalities who are sensitive to the problems of their perspectives and accept responsibility for the reconstruction of those social patterns. When education sets up barriers between the school and society, or between art and science, or between the individual and the social matrix, it is not fostering the socially responsible individuality which is the peculiar potentiality of humanity.

Education's task, if we follow Mead's thought, is that of promoting an adequate self-consciousness. The problem is:

. . . that of so overcoming the distances in space and time, and the barriers of language and convention and social status, that we can converse with ourselves in the roles of those who are involved with us in the common undertaking of life. (67:194)

Mead's faith is, "If we can bring people together so that they can enter into each other's lives, they will inevitably have a common object, which will control their common conduct." (*Ibid.*) This is no small task for:

. . . it involves not simply breaking down passive barriers such as those of distance in space and time and vernacular, but those fixed attitudes of custom and status in which our selves are imbedded. Any self is a social self, but it is restricted to the group whose roles it assumes, and it will never abandon this self until it finds itself entering into the larger society and maintaining itself there. (*Ibid.*)

In Mead's view a morally adequate education is one in which isolated interests and objects are brought into relationship with others so that common undertakings and commonly held interests and objects can provide for the fullest development of the individual. Presumably such barriers as racial intolerance, and class and caste barriers of all kinds limit the role-taking function and should be overcome so that education may provide increasingly broader, more varied, and more involved attitudes for the individual to assume. We should encourage the give-and-take between perspectives so that broad social purposes and sympathies can operate. It appears that Mead's faith in the future well-being of humanity springs from his belief in the consequences of making available the most varied and penetrating roles or attitudes that we can take.

SUMMARY

Mead finds that in the emergence of reflective intelligence the self arises. In the operation of the significant symbol the individual points out something to himself when he points it out to others, for he perceives the effect of the symbol upon another and takes the attitude of the other toward his own significant language. In so doing the individual becomes conscious of himself as an object. The self is thus constituted by the attitudes of others and by the organized attitude of the community of others. This generalized other acts to control the behavior of the individual according to the commonly accepted patterns. But the self not only assumes the community patterns; it also asserts its perspective over against the attitudes of the generalized other. The self is thus creative and reconstructs to some extent the commonly accepted ways of behaving. The reconstruction of society and its institutions thus occurs by the assertion of the individual's perspective and of the values cherished from his point of view. Institutions are thus not merely subversive of individuality but should afford opportunity for the fullest development of personality. This pattern of social and individual growth is descriptive of the reconstructive processes with which education is concerned.

CHAPTER VI

Democracy, Freedom, and Responsibility

Mead's Conception of Democracy.—Freedom and Education.—Responsibility and Education.—Summary.

MEAD'S CONCEPTION OF DEMOCRACY

MEAD sees that the problem of society is the problem of how the society can preserve its valued attitudes and pass these on to the growing individuals and at the same time provide a means for the necessary changes which make possible the continued usefulness of the institution and the full realization of the personalities involved in it.

That is the problem of society, is it not? How can you present [preserve] order and structure in society and yet bring about the changes that need to take place, are taking place? How can you bring those changes about in orderly fashion and yet preserve order? To bring about change is seemingly to destroy the given order, and yet society does and must change. That is the problem, to incorporate the methods of change into the order of society itself. (70:361-2)

Mead finds in constitutional democracy the method whereby social change occurs without destroying the society which changes. In democratic societies provision is made for the reconstruction of the social patterns according to an orderly process.

. . . When you set up a constitution and one of the articles in it is that the constitution may be changed, then you have, in a certain sense, incorporated the very process of revolution into the order of society. Only now it is to be an ordered, a constitutional revolution by such and such steps. (70:361)

Thus the government that is provided by constitutional democracy makes use of the expression of the "I" of the individ-

ual, or the minority, that is asserted against the existing social pattern so that the way of life of the community may be reconstructed.

Mead sees in democracy, however, something more than a form of government. It is a way of life in which the individual achieves his fullest development. The individuality of the minded self is the precious value which democracy seeks to preserve and make use of and enlarge. The self-realization which Mead describes in his view of mind and personality is that which is at the heart of the democratic concept. Democracy is not merely a constitutional form of government, but a manner of behaving in which the individual, who is a product of a society, can reach the fullest development of his personality.

Mead's high regard for the individual is not traditional individualism. It is not an individualism resulting from the presupposition of natural, innate rights, unconditioned by the communicative process. It is a valuing of the individual as a social product and as the means of a social reconstruction which makes for a higher individuality. Mead's respect for individuality, fundamental to the democratic way of life, flows from his conception of mind as emerging through the communicative act and from his conception of self as developing in that process. The individuality which Mead finds fundamental to the democratic life is the same concept which he observes in the operation of the method of science. It is the appearance in the biography of an individual of an interest or value which is not adequately taken care of in the existing belief. The assertion of that interest or value and the reconstruction of the community belief in the light of that which has been neglected constitutes the assertion of the self seeking its full realization. This process, in Mead's view, is essential in democracy, and it is the operation of emergent mind as it uses the experimental method in social affairs.

It is Mead's hypothesis that in a democratic society ". . . the individual realizes himself in others through that which he does as peculiar to himself." (69:289) The basic concept of democracy is that the individual realizes himself in the co-

operative acts in which he participates. Mead points out that the physician "who through his superior skill can save the life of an individual can realize himself in regard to the person he has benefited." (69:288) In asserting his competency in his distinctive function, in his ability to carry out an act better than others and for the betterment of others, the individual achieves his fullest development. The individual, in these co-operative acts, is realizing the fullest expression of his selfhood and is furthering the society of others through which he functions.

Mead points out that this is a functional attitude. The physician achieves self-realization through what he is able to do, not because of any prearranged or arbitrary status which he may have inherited. The communicative process through which the individual has grown to a superior selfhood has enabled him to assert his ability to excel in a certain type of social act. This leadership is not the absolutistic superiority of a class or caste system.

The development of the democratic community implies the removal of castes as essential to the personality of the individual; the individual is not to be what he is in his specific caste or group set over against other groups, but his distinctions are to be distinctions of functional difference which put him in relationship with others instead of separating him. (69:318)

Democracy implies a realization of personality through what one is able to do in a better way than others rather than a sense of superiority to others through one's membership in a privileged group.

In Mead's view, this democratic assertion of the self through the performance of a social service carries with it the recognition of the right of others to the same sort of self-realization. The physician who achieves his full selfhood in the act in which he prolongs the life and health of others realizes the opportunity for the realization of other selves in their appropriate roles. The engineer realizes his full selfhood in his constructive acts; the teacher, artisan, and farmer in their appropriate social roles. In a democracy functional differentiation implies a func-

tional equality which recognizes the right of the others to assert their personalities in their distinctive capacities.

The equality implied in democracy is not, according to Mead's belief, a leveling-down process in which everyone is "ironed down" to a common likeness.

It is often assumed that democracy is an order of society in which those personalities which are sharply differentiated will be eliminated, that everything will be ironed down to a situation where everyone will be, as far as possible, like everyone else. But of course that is not the implication of democracy: the implication of democracy is rather that the individual can be as highly developed as lies within the possibilities of his own inheritance, and still can enter into the attitudes of the others whom he affects. There can still be leaders, and the community can rejoice in their attitudes just in so far as these superior individuals can themselves enter into the attitudes of the community which they undertake to lead. (69:326)

The democratic ideal, then, in Mead's thought, is that in which the individual has certain common rights and values, identical for all the members of the community, and in addition to this common social nature the personality is marked off from others by that which is peculiar to himself. The individual takes the attitude of the others and contains in himself the community response; at the same time he achieves his fullest self in the act in which he is a leader, in the social function that he performs better than the others.

Democracy to Mead represents the ideal toward which the mechanism of communication is working.

The ideal of human society is one which does bring people so closely together in their interrelationships, so fully develops the necessary system of communication, that the individuals who exercise their own peculiar functions can take the attitude of those whom they affect. . . . If communication can be carried through and made perfect, then there would exist the kind of democracy to which we have referred, in which each individual would carry just the responses in himself that he knows he calls out in the community. (69:327)

In the ideal of the democratic way of life the barriers of caste

or wealth or position would be so overcome by the development of communication that the individual would affect himself just as he affects others, would carry the interests and values of others in his personality, in his own particular function in the society. It is in the development of the interrelationships and interdependencies of modern life and in the development of a communication that will lead to a more thoroughly social self that the democratic life promises the fullest development of personality.

Mead recognizes that the present stage of democracy is not that in which this ideal is reached.

As democracy now exists, there is not this development of communication so that individuals can put themselves into the attitudes of those whom they affect. There is a consequent leveling-down, and an undue recognition of that which is not only common but identical. The ideal of human society cannot exist as long as it is impossible for individuals to enter into the attitudes of those whom they are affecting in the performance of their own peculiar functions. (69:328)

What is essential to the growth of democracy toward its social ideal is that the private and isolated interests which the individuals assert should grow into the interrelated, common interests and values of the social whole. Mead further indicates that it is not simply a widening of community values that is involved in the democratic ideal but also, "the superiority and efficiency of the science, art, and human relation which are so fixed." (65:147)

Mead mentions several other aspects of social life which have worked toward the extension of communication and community interest. Religious and economic processes involve acts which potentially include all individuals within a community of communication. "They provide ends which any form that makes use of the same medium of communication can enter upon." (69:281) The religious and economic aspects of life provide a wider community of cooperation and communication than the regional interests of more restricted societies.

By religious attitudes, Mead refers to a broader attitude

than is represented in a cult, creed, or dogma. He means the attitude of the universal brotherhood of mankind and the extension of this attitude to the universe at large, a "feeling at one with everybody and everything about us." (69:275) The religious attitude as expressed in the attitudes of kindness, helpfulness, and assistance leads to a universal cooperative activity. Sympathy, neighborliness, and the missionary attitude involve the placing of the individual in the role of the other, the cooperative enterprises resulting from this attitude, and the extension of the community to broader interests and acts which enlarge the self.

Mead sees in the economic aspects of society a similar widening of community interests.

There is no question but that the economic process is one which has continually brought people into closer relationship with each other and has tended to identify individuals with each other. The outstanding illustration of this is the international character of labor, and the development within the local community of a labor organization as such. There is both the identification of the laborer with his fellow-laborers in the group, and the identification of the laborers in one community with those in another community. . . . The economic process is one which brings groups inevitably closer together through the process of communication which involves participation. It has been the most universal socializing factor in our whole modern society, more universally recognizable than religion. (69:295-6)

Mead points out that in the process of exchange one puts himself in the role of another to see what the other needs. One finds that what another needs is what one has an excess of. The process of bargaining is that of taking the role of another toward one's surplus to see how valuable it is, how much can be gotten for it. This process leads to the appearance of markets, of a medium of exchange, and to the more involved economic processes.

But the economic and religious societies do not, as a matter of fact, realize their potential universality, according to Mead's position. The economic community:

. . . includes everybody with whom one can trade in any circumstances, but it represents a whole in which it would be next to impossible for all to enter into the attitudes of the others. The ideal communities of the universal religions are communities which to some extent may be said to exist, but they imply a degree of identification which the actual organization of the community cannot realize. We often find the existence of castes in a community which make it impossible for persons to enter into the attitude of other people although they are actually affecting and are affected by these other people. (69:326-7)

The castes and divisions in these societies prevent the full development of the communicative process. "In the ideal condition separation from the point of view of caste will become social function from the point of view of the group." (69:319n) The democratic ideal, with its removal of castes, moves toward a more adequate social ideal.

The democratic society, then, as Mead sees it, is that in which functionally differentiated personalities are able to participate to the fullest extent in common enterprises. Through the extension of opportunities for taking the role of the others toward common interests, democracy represents the broadest and fullest use of the communicative function. The democratic individual is able to make a response which is universal throughout the group and which at the same time contains the value of his own perspective. The response to freedom of the press is identical throughout the democratic society and represents the assertion of the value which is most intimate to those whose function is concerned with the news of the day. Through the communication of attitudes all the members of the democracy become sensitive to the common interest of the uncensored press.

In Mead's view the democratic way of life is that in which an inclusive universe of discourse is achieved. The individual asserts what is particularly valuable from his point of view and appeals to the universe of others to take account of this common interest. The individual appeals to all citizens to participate in the inspection and verification of his observation from their functional roles. The act of voting is the act in which the

individual asserts his attitude toward the course of the social patterns in which he participates. What democratic living means is the reconstruction of the patterns of group life by the assertion of the individual and the appeal to the universe of others to confirm the proposed reconstruction.

In Mead's hypothesis this reconstruction of the democratic society by the concerted action of its members represents the application of the scientific method to the problems of the social order. The scientific method enables us to carry out the ideal of democracy, "enables us to keep the order of society and yet to change that order within the process itself." (70:366) What happens in scientific research and in democratic living is that the individual confronts an inadequacy in the existing hypotheses or ways of operating and asserts his own perspective, becomes a leader, seeks to reconstruct the existing order to take account of the exception or value or interest for which the older order does not provide.

Mead indicates that the scientific method implies a democratic way of life in his statement that "there is nothing so social as science," which has already been quoted in connection with his concept of the universal. "Nothing so rigorously oversteps the points that separate man from man and groups from groups as does science." (70:168) The method of research science implies that so long as he is a competent inquirer, any person regardless of his rank or perspective would confirm (or reconstruct) the hypothesis of the scientist.

It is not until science has become a discipline to which the research ability of any mind from any class in society can be attracted that it can become rigorously scientific, and it is not until its results can be so formulated that they must [may] appeal to any enlightened mind that they can have universal value. (65:147-8)

Mead goes farther than seeing that the experimental method of science implies the opportunity of all others to verify the hypothesis. In his view, "there is only one method of intelligence . . ." (68:73), and that is revealed in the research attitude. It is his opinion that;

. . . it would be a mistake to assume that scientific method is applicable only in the fashioning and selection of means, and may not be used where the problem involves conflicting social ends and values. (55:235)

According to Mead:

. . . scientific method is not an agent foreign to the mind, that may be called in and dismissed at will. It is an integral part of human intelligence, and when it has once been set at work it can only be dismissed by dismissing the intelligence itself. (55:236)

What should be recognized, as Mead sees it, is that the scientific method is the only fruitful method that we have of dealing with affairs in terms of their consequences, and hence it is the method which should be applied to all of our problems. What a thorough acceptance of the democratic way of life and of the scientific method implies is that the social, moral, political, and economic aspects of life may best be dealt with in terms of the communicative act in which existing inadequacies are reconstructed in terms of the anticipated consequences of more adequate ways of operating and believing.

Mead sees no necessary conflict between the method of the research scientist and the operation of this reflective intelligence in social and moral conduct.

Here, then, is the issue, so far as an issue exists, between scientific method and social and moral conduct. If the community is seeking an end by the intelligent method of science and in doing this runs counter to its habits in attaining and maintaining other ends, these ends are just as subject to restatement and reconstruction as are the means themselves. Nor does science pretend to say what this restatement or reconstruction must be. Its one insistent demand is that all the ends, all the valuable objects, institutions, and practices which are involved, must be taken into account. In other words, its attitude toward conflicting ends is the same as its attitude toward conflicting facts and theories in the field of research. It does not state what hypothesis must be adopted. It does insist that any acceptable hypothesis must take into account all the facts involved.

Now such a method can be in conflict with social conduct only if that conduct sets up certain ends, institutions and their values, which are to be considered as inviolable in the form in which they

have been received and are now accepted. There is no issue between scientific method and moral and social conduct that springs from the fact that science deals with the relation of past facts to each other while conduct deals with future ends.

Science does not attempt to formulate the end which social and moral conduct ought to pursue, any more than it pretends to announce what hypothesis will be found by the research scientist to solve his problem. It only insists that the object of our conduct must take into account and do justice to all of the values that prove to be involved in the enterprise, just as it insists that every fact involved in the research problem must be taken into account in an acceptable hypothesis. Scientific method is at war with dogmatism whether it appears in doctrine, or cult, or in social practice. Scientific method is not teleological in the sense of setting up a final cause that should determine our action, but it is as categorical in insisting upon our considering all factors in problems of conduct, as it is in demanding the recognition of all of the data that constitute the research problem.

Scientific method does not insure the satisfactory solution of the problem of conduct, any more than it insures the construction of an adequate hypothesis for the research problem. It is restricted to formulating rigorously the conditions for the solution. . . . (55: 237-8)

What the scientific method does demand when it is brought into the region of social and moral conduct is that social ends, values, institutions, and patterns of behavior should not be permanent and secret and concealed but should be open to public, cooperative inquiry in terms of the manipulative means of their attainment. Just as the scientist takes what is apparent to him from his perspective and formulates it so that it is open to the inspection and verification of the community of others, so in the field of moral, political, economic, and social activities the pattern of social progress should be that the individual formulates what is of interest and value to him from his point of view and asserts his hypothesis for verification by the community of others. The existing social and moral order is in this way reconstructed by the public verification of the individual's contribution. The scientific method thus constantly opposes the dogmas and finalities with which it comes in conflict in the social order. For Mead, there are no fixed and

final absolutes derived from a source external to the emergent mind of man as he deals experimentally with the problems of social living.

Mead's position is that "in the social world we must recognize the working hypothesis as the form in which all theories must be cast as completely as in the natural sciences." (8:369) In the social field, as in the physical sciences, the experimental method demands a willingness to base all belief upon the kind of test to which the hypothesis is put. It is this attitude of the scientist which we should come to apply to problematic areas at present supposed to be amenable only to some other method than that of the experimental inquiry of a thoroughly naturalized intelligence. Just as the scientist in his research is willing at any time to call into question any of his existing hypotheses, so in the more complex fields of institutional life we must become willing to break down the impregnability of established beliefs, to broaden and deepen our frames of reference so that we can participate in the more inclusive good life.

Mead notices an important difference between the operation of the scientific method in the moral sphere and its operation in the physical sciences, but the difference is one of complexity rather than one involving two different methods of inquiry. In moral undertakings:

. . . we must act, however inadequate our plan of action may be. The research problem may be left because of our inability to find a satisfactory hypothesis. Furthermore, there are many values involved in our problems of social conduct to which we feel that we are unable to do justice in their whole import, and yet when they are once envisaged they appear too precious to be ignored, so that in our action we do homage to them. We do not do justice to them. They constitute our ideals. They abide in our conduct as prophecies of the day in which we can do them the justice they claim. They take on the form of institutions that presuppose situations which we admit are not realized, but which *demand* realization. (55:238)

The ideals which we hold before us then are the values to which we are to do justice when the circumstances permit. They are

the demands for which we cannot yet supply the adequate means but for which we are operating in the future. The task before us is to so define the course of our cooperative enterprises that they move in the direction of securing the goods which we cannot immediately provide for.

Mead sums up his conviction that the experimental method is the proper method for the solution of our social and moral problems in an almost lyrical passage.

Scientific method has no vision, given in the mount, of a perfected order of society, but it does carry with it the assumption that the intelligence which exhibits itself in the solution of problems in natural science is of the same character as that which we apply or should apply in dealing with our social and moral problems; that the intelligible order of the world is akin to its moral and social order because it is the same intelligence which enters into and controls the physical order and which deals with the problems of human society. Not only is man as an animal and as an inquirer into nature at home in the world, but the society of men is equally a part of the order of the universe. What is called for in the perfection of this society is the same intelligence which he uses in becoming more completely a part of his physical environment and so controlling that environment. It is this frank acceptance of human society as a part of the natural order that scientific method demands when it is applied to the solution of social problems.

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The scientific attitude contemplates our physical habitat as primarily the environment of man who is the first cousin once removed of the arboreal anthropoid ape, but it views it as being transformed first through unreflective intelligence and then by reflective intelligence into the environment of a human society, the latest species to appear on the earth. This human society, made up of social individuals that are selves, has been intermittently and slowly digging itself in, burrowing into matter to get to the immediate environment of our cellular structure, and contracting distances and collapsing times to acquire the environment that a self-conscious society of men needs for its distinctive conduct. It is a great secular adventure, that has reached some measure of success, but is still far from accomplishment. The important character of this adventure is that society gets ahead, not by fastening its vision upon a clearly outlined distant goal, but by bringing about the immediate adjustment of itself to its surroundings, which the immediate prob-

lem demands. It is the only way in which it can proceed, for with every adjustment the environment has changed, and the society and its individuals have changed in like degree. By its own struggles with its insistent difficulties, the human mind is constantly emerging from one chrysalis after another into constantly new worlds which it could not possibly prewise. But there is a heartening feature of this social or moral intelligence. It is entirely the same as the intelligence evidenced in the whole upward struggle of life on the earth, with this difference, that the human social animal has acquired a mind, and can bring to bear upon the problem his own past experiences and that of others, and can test the solution that arises in his conduct. He does not know what the solution will be, but he does know the method of the solution. We, none of us, know where we are going, but we do know that we are on the way.

The order of the universe that we live in *is* the moral order. It has become the moral order by becoming the self-conscious method of the members of a human society. We are not pilgrims and strangers. We are at home in our own world, but it is not ours by inheritance but by conquest. The world that comes to us from the past possesses and controls us. We possess and control the world that we discover and invent. And this is the world of the moral order. It is a splendid adventure if we can rise to it. (55:245-7)

Education, if it were to follow the lead of Mead's thinking, would see an interest or value or ethical factor implicit in the method of the research scientist. Mead finds in the method of science not simply a highly refined way of discovering new facts. Such a conception of the experimental method is not adequate and results in the belief that when we are involved in questions of policy or values or purposes ours is an entirely different undertaking from the act of the research scientist. The error in this limited conception of scientific method is the error of the positivist, which we have dealt with in Chapter I. What is overlooked is that meanings and purposes are inherent in the activity of the scientist. Mead emphasizes that the scientist is seeking a reconstruction of existing principles because some exceptional event or fact does not fit in with the established body of beliefs; he is not locating the facts and letting them tell him what to do. He is rather selecting some existing principle out of a stock of operating principles many of which are unquestioned for the time being; he is searching for data

which bear on the principle now undergoing reexamination, and is valuing especially the facts which are not explained by the present generalization. As scientist, his controlling purpose is so to reconstruct the existing belief and so to record the steps leading to that reconstruction that his method and conclusions can be confirmed. He feels that other competent inquirers should be able to verify his research, that they ought to arrive at common meanings.

Our educational responsibility, according to Mead's belief, appears to be the development of the research method as "an integral part of human intelligence" which we should not reserve for certain aspects of human welfare but should develop as the inclusive method of inquiry. Mead, rather than pointing out a separation or opposition between the method of the scientist and the method of arriving at a moral judgment, would have education postulate the contiguity of ethical and scientific belief within the pattern of the research method. As far as the writer can understand, this does not mean that Mead is involved in the fallacy of identifying facts and values or means and ends. On the other hand, it does seem to mean that for Mead there is nothing involved in the moral judgment which fundamentally alters the pattern of inquiry of the scientific method. Presumably, the further clarification of the scientific method from the point of view of its relation to the ethical judgment would be a profitable undertaking.

One of the outstanding educational values of Mead's belief is that we need to develop a more extensive and more thorough use of the scientific method in our modern world rather than curtail this research attitude. We should bear in mind that Mead developed his position in the context of the first World War. He does not see the tragedy of world conflict as an inevitable result of the advance of science. Rather he sees it resulting from the inadequate use of the intelligence which is the method of science. The contemporary significance of Mead's thought seems to be that our best hope for the future of civilization in the years that lie ahead is the courageous use of the scientific method in dealing with the problems of social recon-

struction. If the use of scientific intelligence has brought upon us the terrible destruction of our contemporary warfare, it has also brought us the possibility of dealing scientifically with pressing human problems. The furtherance of the research method in the solution of problems that concern interests, needs, purposes, and values is the path to which Mead guides our educational endeavors.

Mead's position indicates that the great moral undertaking of education should recognize its responsibility in the extension of the experimental method of emergent mind. He indicates that we should look forward to the time when teachers will recognize the implications involved in the empirical view of mind as the operation of the research method and work toward the extension of that method to the controversial areas of social life. Involved in Mead's view is at least the hope that educators may come to realize that science is not just another course in a compartmentalized curriculum and that it is not merely the amassing in the young of a group of facts about our physical world. The educational task is so to encourage the scientific habit of inquiry that we will rely upon it in fields now dominated by pre-scientific ways of thinking. The educator who is thoroughly alive to the implications of the pragmatic view would be increasingly interested in seeing the breaking down of the barriers that keep our reflective method of intelligence from operating in the areas where existing thought patterns are unscientific. Mead's view would look toward the extension by education of the scientific habit of mind in order that it would become the operative method for dealing with *all* our problems.

Mead sees as one of the first steps toward the application of the scientific method to regions which prejudice, dogma, traditions, and vested interests have dominated the extension of that method in the field of the social sciences.

The evolutionary social science which shall describe and explain the origins of human society, and the social sciences which shall finally determine what are the laws of social growth and organization, will be as essential for determining the objective conditions

of social consciousness, as the biological sciences are to determine the conditions of consciousness in the biological world. (31:408)

To him, the emerging social sciences, as they come to find their appropriate use of the experimental method, hold the greatest promise for the future.

Social science in anthropology, in sociology pure and impure, dynamic and static, has not as yet found its scientific method. It is not able to satisfactorily define its objects, nor to formulate their laws of change and development. Until the social sciences are able to state the social individual in terms of social processes, as the physical sciences define their objects in terms of physical change, they will not have risen to the point at which they can force their object upon an introspective psychology. We can to-day foresee the possibility of this. Eugenics, education, even political and economic sciences, pass beyond the phase of description and look toward the formation of the social object. We recognize that we control the conditions which determine the individual. His errors and shortcomings can be conceivably corrected. His misery may be eliminated. His mental and moral defects corrected. His heredity, social and physical, may be perfected. His very moral self-consciousness through normal and healthful social conduct, through adequate consciousness of his relations to others, may be constituted and established. (32:176-7)

Education in a democracy should lead to a fuller recognition of the opportunities and responsibilities contained in the method of scientific inquiry.

FREEDOM AND EDUCATION

The extension of the scientific method of inquiry to the social and moral field redefines our notion of freedom in the democratic life in a way that is significant for contemporary education. The self which grows in the social process does not partake in freedom as a natural right. As we have seen, the self is not merely constituted by the internalization of social patterns; the process of social nurture involves the reconstruction of society. It is in this context that we should define our modern notion of freedom. It means the surrendering of the notion of inalienable, individual rights established prior to the social matrix in which individuality develops.

Freedom is an outcome of the relationship between the growth of the individual and the reconstruction of his environment—social and physical. To the extent that the individual is constituted by his cultural “me,” freedom involves a truce with necessity. Freedom involves the acceptance of the pattern of social control, and to be free means to recognize that in the process of social nurture a reconstruction of the existing state of affairs takes place. “Freedom lies definitely in a reconstruction . . . in the nature of presenting an order which is more adequate than the order which has been there.” (71: 663) The individual becomes free to the extent that he takes over the social conditions which are necessarily his and reconstructs his acts and the social whole in accordance with the desires and preferences which his perspective entails. The individual achieves freedom in the integration which he is able to effect between what, from his point of view, is and what might be.

External compulsion which prevents freedom is that which disintegrates this relation between the individual and his world. However, absence of external compulsion alone does not constitute freedom but the possibility of freedom, for it provides the conditions under which the individual can act so that he can achieve the anticipated consequences of his chosen act. In so far as the individual, though free from external compulsion, is ignorant of the consequences of his act, he has not achieved freedom.

In other words, to Mead freedom is not a matter of unconditioned “free will” or volition but of intelligence, of prediction, control, and preference guided by foreseen outcomes. Freedom is the operation of emergent intelligent behavior as it deals with events that indicate what they involve. The freedom which the acceptance of the experimental method brings is a freedom from the necessity of acting blindly, without a preview of consequences. Indicating events not only point to their consequences but enable the individual to adjust his desires, to direct his impulses, to reconstruct his habitual responses so that his equilibrium may be progressively main-

tained. Freedom is achieved in the defining of ends in terms of their means of attainment and in determining the significance of an event in terms of the ensuing consequences. In terms of an earlier discussion, freedom is the ability to turn brute events into objects of knowledge. It is the application of the scientific method of inquiry to all problems that contains the promise of the fully developed, free, democratic life.

The achievement of this ability to deal with objects which indicate their consequences marks the advance of civilization, according to Mead's view. It is not merely a freedom from the surprises of unforeseen physical occurrences but a freedom from the established behavior patterns which have outgrown their usefulness.

. . . Primitive human society offers much less scope for individuality—for original, unique, or creative thinking and behavior on the part of the individual self within it or belonging to it—than does civilized human society; and indeed the evolution of civilized human society from primitive human society has largely depended upon or resulted from a progressive social liberation of the individual self and his conduct, with the modifications and elaborations of the human social process which have followed from and been made possible by that liberation. In primitive society, to a far greater extent than in civilized society, individuality is constituted by the more or less perfect achievement of a given social type—a type already given, indicated, or exemplified in the organized pattern of social conduct, in the integrated relational structure of the social process of experience and behavior which the given social group exhibits and is carrying on; in civilized society individuality is constituted rather by the individual's departure from, or modified realization of, any given social type than by his conformity, and tends to be something much more distinctive and singular and peculiar than it is in primitive human society. (69:221-2)

The growth of the experimental method fosters "progressive social liberation" and helps the individual to free himself from the conformities of the accepted and standardized patterns of action and belief. That Mead's thinking is very pertinent to contemporary affairs is apparent. The "more or less perfect achievement of a given social type," which characterizes primitive society, also characterizes the reversal of civilization that

we see in Naziism where freedom and individuality are replaced by conformity to the authoritative social pattern.

Educationally, Mead's position would seem to correct the notion that freedom is the unguided, unrestrained expression of the child's own immediate whim. In the reaction against the compulsion of the older educational patterns, we have sometimes suggested that the undirected expression of impulse is the essential part of freedom. Educators have sometimes supposed that to get rid of all compulsion is to give the child freedom. Mead's position indicates that the educator should not allow freedom to degenerate into the uninhibited expression of passing fancy, but that freedom involves a distinctive type of compulsion. It is not mere external compulsion, although Mead's position would seem to leave the door open to more of that in the appropriate situation than modern education seems to admit; it is the compulsion of acts and events which entail consequences. If education is to free us from the superstitions and fears of unpremeditated conduct, it should lead the child to accept the responsibility for all the consequences of his acts. The opportunity which the method of experimental inquiry offers for the achievement of responsible freedom has not been comprehended or made operative in most school situations today.

The freedom which the pragmatist desires for the democratic life is the freedom which the scientist prizes. It is the freedom to find data, problems, hypotheses, and solutions anywhere. It is the freedom to work out the significance, the consequences, the implications of a hypothesis. It is the freedom to set forth for the open and public inspection of thinking people the procedures and hypotheses of one's inquiry. Mead's attitude is well expressed in a recent paragraph of Dewey's:

When I think of the conditions under which men and women are living in many foreign countries today, fear of espionage, with danger hanging over the meeting of friends for friendly conversation in private gatherings, I am inclined to believe that the heart and final guarantee of democracy is in free gatherings of neighbors on the street corner to discuss back and forth what is read in un-

censored news of the day, and in gatherings of friends in the living rooms of houses and apartments to converse freely with one another. Intolerance, abuse, calling of names because of differences of opinion about religion or politics or business, as well as because of differences of race, color, wealth, or degree of culture, are treason to the democratic way of life. For everything which bars freedom and fullness of communication sets up barriers that divide human beings into sets and cliques, into antagonistic sects and factions, and thereby undermines the democratic way of life. Merely legal guarantees of the civil liberties of free belief, free expression, free assembly are of little avail if in daily life freedom of communication, the give and take of ideas, facts, experiences, is choked by mutual suspicion, by abuse, by fear and hatred. These things destroy the essential condition of the democratic way of living even more effectually than open coercion, which—as the example of totalitarian states proves—is effective only when it succeeds in breeding hate, suspicion, intolerance in the minds of individual human beings.¹

RESPONSIBILITY AND EDUCATION

To Mead, the human cooperative enterprise and the freedom which human communication makes possible define the responsibility which characterizes human behavior. An ability to predict and choose between alternative ways of acting involves the acceptance of the consequences of the chosen behavior pattern. Freedom and responsibility are concomitants. Neither has meaning without the other.

According to Mead's view, language makes responsibility possible.

We, of course, tend to endow our domestic animals with personality, but as we get insight into their conditions we see there is no place for this sort of importation of the social process into the conduct of the individual. They do not have the mechanism for it—language. So we say that they have no personality; they are not responsible for the social situation in which they find themselves. The human individual, on the other hand, identifies himself with that social situation. He responds to it, and although his response to it may be in the nature of criticism as well as support, it involves an acceptance of the responsibility presented by the situation.

¹ Sidney Ratner, editor, *The Philosopher of the Common Man*, pp. 224-5. New York: G. P. Putnam's Sons, 1940.

Such an acceptance does not exist in the case of the lower animals.
(69:182-3)

In the emergence of mind through the taking of the attitude of the other and in the growth of personality through the "I" and the "me," the organism becomes a responsible individual. Because the individual in the cooperative act knows what the others want and what the consequences of his act will be and hence achieves freedom with regard to those consequences, he assumes responsibility for the common enterprise. That constitutes his personality.

At the heart of Mead's reconstructive view of human intelligence is his insight that if we can control the means for a better and fuller life, we must accept responsibility for the ends which those means make attainable. If mind is instrumental to the solution of our problems, then the use of intelligence in determining the course of human affairs is a moral obligation which the emergence of mind imposes upon us.

Just in so far as we can control our experience we can control the world, just in so far as we can be creative in our own experiences, we can be creative in the world. We can be thus intelligently creative only in so far as we conform to the order which is revealed in our past experience. We control nature by obeying her. We have been doing it at a great rate. The world in which humanity lives today, especially in the western world, is as different from that of the eighteenth century as were two geologic epochs. We can determine what plant life and what animal life shall surround us; and to a large extent we do. We can determine what shall be the immediate incidence of cold and heat upon our bodies. We can determine what sort of a human race shall be bred, and how many of them. All the conditions which we believe, in a large measure, determined the origin of species are within our power. We can do all of this, but we have not accepted the responsibility for it. And, I take it, this is the moral that we should draw from the identity of the world of our experience and the real world. *If we can control the means we become responsible for the new ends which they enable us to form. And we have come far short of accepting that responsibility.* We fashioned the marvellous world of the twentieth century, and then undertook to fight an eighteenth-century war. The hands were the hands of Esau, but the voice was the voice of Jacob.*
(62:429-30)

* Italics not in original.

If we are to accept the control over the conditions which make possible the more abundant good life, then we should also accept the responsibility for determining how the new controls will be used. To use a method of inquiry in scientific enterprises and to fail to apply that behavioral pattern to the region of social planning is, according to Mead's view, a great moral failure.

Mead's appeal is for a morality which is based upon the complete naturalization of man within the evolutionary process of nature. "If humanity has fled shivering from the starry spaces, it has become minutely at home in the interstices of the speck that it inhabits for an instant." (55:234) The responsibility for human affairs lies solely with man. Whereas the effect of seeing mind as a supernatural endowment involves a view of moral obligation as a listening to the voice of an inner conscience that intuitively distinguishes right from wrong, Mead's naturalistic view of mind defines duty as the acceptance of the responsibility for the consequences of an act. Responsibility grows out of a sensitivity to what is involved in a situation and an evaluation of what has happened and will happen if certain ways of acting are carried out.

The responsibility of human affairs lies with human society. Our universals, our eternal objects, our values are all located in the objects of our experience. There is no city not built with hands eternal in the heavens that can give us the pattern of our society and all its values. We must find them and by our intelligence grasp them in terms of the means of their accomplishment. The stars in their courses are not fighting for us, but we know their courses and can profit by them. We are in nature but we can use nature and in so far nature can become more valuable. The responsibility lies with us. Intelligence has brought this responsibility upon us, and it has also gifted us and our undertakings with the zest of adventure.

It is a philosophy which comes with something of the effect of a cold shower, and it depends somewhat upon the vitality of the man who becomes acquainted with it whether it leaves him with a chill or a glow. We have for so long a period in our human history got our sense of belonging together in one society by conceiving of that society in terms of another world; human conduct and

human interests in this world have seemed so devious, so inter-necine, so hopelessly stupid that only from the viewpoint of a New Jerusalem could we think of humanity as a whole and bound to a common end. We have not felt able to assume the responsibility for our own common ends and purposes. We have not even been willing to lodge those values within human experience. It has seemed far too frail a structure to carry such precious goods. We have lodged them where moth and rust do not corrupt and there our speculative hearts have been with them. Can we realize and conserve them if they are recognized as with us in our own world? And yet if we have the method of our own intelligence, if by that intelligence we can identify our goods and take all the steps possible to reach them, why should we hesitate to assume the responsibility which our own endowment carries with it?

For . . . if we do not accept that responsibility we cannot rise to the full measure of our intelligence—we have refused to apply the method of science to the most exigent problems that face us. (68:80-81)

If we can control the conditions under which human life can emerge from impulse and habituation, from prejudice and dogma, to the symbolic functioning of events that promise something for the future, then duty is not blind to consequences, but is based on their anticipation.

Mead considers that the imperative responsibility which rests upon us is that of applying the method which emergent mind has evolved in scientific inquiry to the fields which resist reconstruction by that method. “. . . In the presence of an evil which we wish to remove, the intelligent attitude is that of discovering the conditions out of which the evil springs and undertaking to control these conditions. . . .” (71:492) Yet that is what we fail to do in situations where existing social arrangements lag behind the envisaged aims of a better life for all. “. . . The most serious obstacle to this sort of intelligence lies in the failure of traditional ideas lying in our minds to fit in with the statement of the problem in terms of controlling conditions.” (*Ibid.*) We tend to find the meaning of our social institutions in terms of their traditions rather than in terms of the social purposes which they serve. Mead cites as an example the fact that:

. . . to secure the bare formulation of a policy we are forced to involve ourselves in the factional interests of parties that are psychologically closely parallel to the turbulent politics of an ancient or a medieval commonwealth. We are enormously clever at fashioning our means, but we are still in no small measure dependent for conceiving our ends upon outworn mental structures that our very science has invalidated. (55:235)

What is needed is the courage to inquire into the services of our institutions in terms of their functions in the achievement of human needs rather than in their ability to preserve outworn values. We need to assume responsibility for the reconstruction of social patterns through the use of the scientific approach to moral and social problems.

Education, in this view, is a moral undertaking defined by the view of intelligence as a natural emergent, making possible a responsible way of dealing with the problems of human societies. Education will not contribute to the solution of current problems merely by casting old ways of thinking into a phraseology of science. The supplanting of ideas, and their crystallized expression in institutions, generated in a pre-scientific way of thinking will take place only as education consciously and critically extends the scientific attitude to the social fields. We need to encourage the open, public exchange of experience, to lead people to a way of settling their problems by free communication of interests and values. Education needs to encourage the public verification of ways of dealing with social problems so that the individual becomes increasingly responsible for the shared experience demanded by our vast modern societies. Clearly, we should not merely revamp our old patterns into a terminology of science but we should assume an active responsibility for the extension of the scientific method and attitude. Education in our day is much more than the ability to use the three R's and much more than a knowledge of the traditions and heritage of the past. It involves also becoming aware of what the method of scientific thinking is and what its inherent universality means for the cooperative enterprises that modern interdependent society brings to us.

SUMMARY

According to Mead's view, the problem of society is the problem of maintaining its goods and values and passing these on to the growing selves of that society and at the same time providing for the reconstruction of the existing society so that the full realization of personality may occur. He finds in constitutional democracy the method whereby social change may occur without destroying the society which changes, for in the democratic society provision is made for the reconstruction of social patterns by an orderly process. In the democratic way of life the self achieves its fullest realization by asserting its competency in a distinctive function and in so doing recognizes the right of all others to the appropriate assertion of their peculiar functions. The fullest amount of cooperative relationship is implicit in the democratic ideal, and in the completely democratic society the private interests and goods of members thus grow into the shared values of the social whole.

Mead believes that this reconstruction of society by the developing selves, which comprise it and are comprised by it, is best achieved by the application of the scientific method to the problems of the social order. He considers that the research method is the method of our best intelligence and should be extended to all areas in which other methods are now operative. According to Mead, freedom from the social standpoint has a dual meaning: the acceptance of the pattern of the social act on the one hand, and the ability to reconstruct the existing state of affairs through the democratic use of the research attitude on the other. Mead regards responsibility as a concomitant of freedom, and believes that the self grows in responsibility as it grows in freedom.

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